STIC-Biotech/ChemLib

112370

From:	

Richter, Johann

Sent:

Monday, January 19, 2004 8:52 AM

To:

Nguyen, Dave

Cc: Subject: Chan, Christina; STIC-Biotech/ChemLib RE; Rush Search request 10/068,160

Approved.

Johann R. Richter, Ph.D., Esq. Supervisory Patent Examiner Biotechnology and Oxgànic Chemistry Art Unit 1621

703-308-4532

-----Original Message-----

From:

Nguyen, Dave

Sent:

Friday, January 16, 2004 8:57 PM

To:

Richter, Johann

Cc: Subject: Chan, Christina; STIC-Biotech/ChemLib Rush Search request 10/068,160

This case is due this bi-week! please rush: Please search SEQ ID NOS: 1, 54, 73, and 74 with the provision that the hit oligos are less than 500 nucleotide residues.

Thanks Dave Nguyen Ramsen Bldg 2D31

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.571-272-0731

Searcher: Sheppard
Phone: Location: Date Picked Up: Date Completed: 1/30 CH
Searcher Prep/Review: Clerical: Online time:

TYPE OF SEARCH:
NA Sequences:
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:

Other:

'ENDOR/COST (where applic.)
STN:
DIALOG:
Questel/Orbit:
DRLink:
Lexis/Nexis:
Sequence Sys.:
WWW/Internet:
Other (specify):

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STIC Search Report Biotech-Chem Library

STIC Database Tracking Number: 112370

TO: Dave Nguyen Location: rem/2d31

Art Unit: 1632 Jan 22, 2004

Case Serial Number: 10/068160

From: P. Sheppard

Location: Remsen Building

Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes		
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3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
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US-09-037-71-15-67
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Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence
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ALIGNMENTS

US-08-433-126A-137/c Sequence 137, Application US/08433126A Sequence 137, Application US/08433126A Patent No. 5688935 GENERAL INFORMATION: ANDREW APPLICANT: SCHNEIDER, DAN APPLICANT: COLD, LARRY ITTLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: 1 CARRESTONDENCE ADDRESS: 241 CORRESPONDENCE ADDRESS: 241 CORRESPONDENCE ADDRESS: 241 CORRESPONDENCE ADDRESS: 241 COMPUTER: Englewood STATE: COLOrado CONTUTER: BANDABLE FORM: MS-DOS COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS COMPUTER: ID-JUNE-1991 PATOR APPLICATION NUMBER: 07/714,131 PATOR APPLICATION NUMBER: 07/536,428 PILING DATE: 1-JUNE-1991 PATOR APPLICATION NUMBER: 07/536,428 PILING DATE: 1-JUNE-1990 PATOR APPLICATION NUMBER: 07/536,428 PILING DATE: 1-JUNE-1990 PATOR APPLICATION NUMBER: 07/964,624 PATOR APPLICATION NUMBER: 07/964,624 PATOR APPLICATION DATA: NUMBER: 07/964,624 PATOR APPLICATION DATA: NUMBER: 07/964,624 PATOR APPLICATION DATA: NUMBER: 07/96																																																		
126A-137/c 1137,_Application US/08433126A 07. 5688935 (INFORMATION: CANT: STEPHENS, ANDREW CANT: SCHNEIDER, DAN CANT: GOLD, LARRY OF INVENTION: NUCLEIC ACID LIGANDS OF OF INVENTION: TARGET R OF SEQUENCES: 241 SPONDENCE ADDRESS: ETI: 8400 E. Prentice Acenue, L.L.C. EET: 84010 E. Prentice Avenue, Suite 200 MTE: COLOrado NTRY: USA 18 80111 TER READABLE FORM: TER READABLE FORM: TER READABLE FORM: TERRATION STEPH: MS-DOS TWARE: WordPerfect 6.0 NT APPLICATION DATA: LICATION NUMBER: US/08/433,126A ING DATE: 0.3 MAY 1995 SSIFICATION NUMBER: 07/714,131 ING DATE: 10JUNE-1991 LICATION NUMBER: 07/536,428 ING DATE: 11JUNE-1991 LICATION NUMBER: 07/964,624 ING DATE: 11JUNE-1992 NEY/AGENT INFORMATION: 1STRATION NUMBER: 07/964,624 ING DATE: 21COTOBER-1992 NEY/AGENT INFORMATION: 1STRATION NUMBER: NEX31.2 OMMUNICATION INFORMATION: 1STRATION NUMBER: 033) 793-333 TION FOR SEQ ID NO: 137: NCE CHARACTERISTICS: GTH: 31 base pairs ETI: MIGHER COLORY: linear	٠		•	• •	٠.	٠.	٠.	٠.	٠.	٠.	٠.	٠.	~•	 			•	•••	••	••	••	••	••	٠.	٠.	٠.	٠.	٠.	٠.	٠.	٠.	٠.	••	••	٠.	••	•••		٠.			. •	•		•	•••		. (รูเ	RE
		TOPOLOGY: SINGE	DEDNIEGO.	nucleic ac		CHARACTERISTICS	FOR SEQ ID NO:	: (303) 793-3433	(303)		r NUMBER: NEX31.	BER: 33,215	Barry J. Swamso	TNEODWA	TOBER-1992	07/964.62	PRIOR APPLICATION DATA:	NE-1990	07/536,42	PRIOR APPLICATION DATA:	NE-1991	07/714,	PRIOR APPLICATION DATA:	514	ĸ	APPLICATION NUMBER: US/08/433,126A	CURRENT APPLICATION DATA:	WordPerfect 6.	SYSTEM:	BM pc compatible	Diskette, 3 1/2 diskette, 1.44	READABLE FORM:		ĸ		Englewood	400 E. Prentice Avenue, Suite	Swanson & Bratschun, L.L.C	DENCE ADDRESS	SEQUENCES:	INVENTION: TARGET	OF INVENTION: NUCLEIC ACID LIGANDS OF	COLD LARRY	SCHNEIDER,	ANT: STEPHENS.	GENERAL INFORMATION:	Patent No. 5688935	137	-08-433-126A-137/c	SHLT 1

FEATURE:

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; OTHER INFORMATION:
US-08-433-126A-137
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US-08-433-124A-137/c
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                                                                              US-08-433-124A-137
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                                               Query Match
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                                                                                                                                                                                                      TELEFAX: (303) 793-343:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 31 base pairs
                                                                                                         OTHER INFORMATION: FEATURE:
                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: WordPerfect CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                           FEATURE:
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APPLICATION NUMBER: 07/714,131
                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: SCHNEIDER, APPLICANT: GOLD, LARR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REPLICATION NUMBER: US/08/433,124A FILING DATE: 03 MAY 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TLE OF INVENTION:
                                                                                                                                                        STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                  TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM pc compatible
OPERATING SYSTEM: MS-DOS
                Local Similarity 100 les 13; Conservative
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                                                                                            OTHER INFORMATION:
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8400 E. Prentice Avenue, Suite 200
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                                65.0%; Score 13; DB 1; Length 31; 100.0%; Pred. No. 55;
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US-08-976-413A-137/c
; Sequence 137, Application US/08976413A
; Patent No. 6127119
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                                                                             Query Match
Best Local (
                                                             Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DAAL.
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/433,124
APPLICATION O3-MAY-1995
APPLICATION O3-MAY-1995
                                                                                                                                                                    FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 11-JUNE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: WordPerfect 8.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: BTC CITY: Englewood STATE: Colorado
                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET NUMBER OF SEQUENCES: 440
                                                                                                                                                                                                                    LENGTH: 31 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/976,413A FILING DATE: 21-NOVEMBER-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM pc
OPERATING SYSTEM:
                                                                           Local
                                                                                                                                                                                                         TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 33, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
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 13 ATCGATGCAGGGG 1
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                                                             l Similarity
13; Conserva
                               6 ATCGATGCAGGGG 18
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8400 E. Prentice Avenue, Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SPECK, ULRICH
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                                                                                                                                                                                                                                                                                                       (303)
                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IBM pc compatible
                                                                                                                                                                                                                                                                                                                      (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-JUNE-1991
                                                                                                                                                                                                                                                                                                       793-3433
                                                         65.0%; Score 13; DB 3; 100.0%; Pred. No. 55; tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MS-DOS
                                                                                                                                                                         All C's are 2'-F cytosine
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                                                                                                                                            All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07/536,428
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                                                           0; Indels
                                                                                              Length 31;
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RESULT 4 PCT-US96-06059-137/c

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US-08-433-126A-138/c
; Sequence 138, Application US/08433126A
; Patent No. 5688935
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                                                                                 RESULT 5
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               Patent No. 5688935
GENERAL INFORMATION:
                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,
                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
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OPERATING SYSTEM: MS-DOS
SOFTWARE: WordPerfect 6.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/06059
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/4:
FILING DATE: 03-MAY-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
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STREET: 8400 E. Prentice Avenue, Suite 200
CITY: Englewood
STATE: Colorado
 PPLICANT:
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                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: sing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: NEX31.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Barry J. Swanson
REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 07/714,131
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                                                                                                                                                                                                                                                                                    OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                      31 base pairs
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STEPHENS, ANDREW
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100.0%; Pred. No.
tive 0; Mismatc
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                                                                                                                                                                                                                                                                                     are 2'-F uracil
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US-08-433-124A-138/c
Sequence 138, Application US/08433124A
Patent NO. 5750342
GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: WordPerfect 6.0
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
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                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
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                                                                                                   APPLICANT: SCHNE APPLICANT: GOLD,
                                                                                                                             APPLICANT:
                                                           NUMBER OF SEQUENCES:
                                                                     ITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE ITLE OF INVENTION: TARGET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM pc
OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Barry J. Swan
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
CITY: Englewood
                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                      Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  38 base pairs
               8400 E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCHNEIDER, DAN GOLD, LARRY
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                                                                                                              STEPHENS, ANDREW SCHNEIDER, DAN
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             Swanson & Bratschun, L.L.C.
00 E. Prentice Avenue, Suite 200
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                                                                                                   LARRY
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100.0%; Pr
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                                                           241
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                                                                                                                                                                                                                                                                                                        ; Score 13; DB
; Pred. No. 55;
0; Mismatches
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55;
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; Sequence 138, Application US/08976413A
; Patent No. 6127119
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; OTHER INFORMATION:
US-08-433-124A-138
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Matches
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NAME: BAITY J. SWALLD.
NAME: BAITY J. SWALLD.
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX31.2
REFERENCE/DOCKET NUMBER: NEX31.2
TELECOMMUNICATION INFORMATION:
793-3333
                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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OTHER INFORMATION:
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LENGTH: 38 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
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APPLICATION NUMBER:
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MEDIUM TYPE: Diskett
                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3 1/2 diskette, 1.44 MG
                                                                                                                                                                                                                              ORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                   APPLICANT: STEPHENS, ANDREW APPLICANT: GOLD, LARRY APPLICANT: SPECK, ULRICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 03 MAY 1995
CLASSIFICATION: 435
                                                   COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                 TLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 07/536,428 FILING DATE: 11-JUNE-1990
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                                                                                                                                                         CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
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                                                                                                                                        COUNTRY:
                                                                                                                                                                                             STREET:
                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic acid
                RE: WordPerfect 8.0 APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCGATGCAGGGG 18
                                                                                                                                                                                           E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite 200
                                                                                                                                          USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Diskette, 3 1/2 diskette,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          All C's are 2'-F cytosine
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                                                                                                                                                                                                                                                  440
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US/08/976,413A
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; Length 38; 55;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (303) 793-34
INFORMATION FOR SEQ ID NO:
                                                                            CURRENT APPLICATION NUMBER: PCT/US96
EILING DATE:
CLACCOLOR OF THE PORT OF T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
OTHER INFORMATION:
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NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,;
REFERENCE/DOCKET NUMBER:
                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/4
FILING DATE: 03-MAY-1995
                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: SCHNEIDER,
APPLICANT: GOLD, LARR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                        TUMBER OF SEQUENCES:
                                                                                                                                                      COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 38 base pairs TYPE: nucleic acid STRANDEDNESS: single
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                                                                          CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13 ATCGATGCAGGGG 1
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                                                                                                                                                                                                                                                   T: 8400 E. Prentice Avenue,
Englewood
: Colorado
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                                                                                                                                                                                                                                                                                                                                                                                                                 STEPHENS, ANDREW
                                                                                                                                                                                                                                                                                                       Swanson & Bratschun, L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MBER: 07/964,624
21-OCTOBER-1992
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                                                                                                                                                                                        Diskette,
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                                              08/433,124
08/433,126
                                                                                                             PCT/US96/06059
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                                                                                                                                                                                             diskette,
                                                                                                                                                                                                                                                                                         Suite 200
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FILING DATE:

03-MAY-1995

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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE: OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
OTHER INFORMATION:
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REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 07/9
FILING DATE: 21-OCTOBER-
ATTORNEY/AGENT INFORMATION:
                                                        APPLICATION NUMBER: 07/714,131 FILING DATE: 10-JUNE-1991 PRIOR APPLICATION DATA:
                                                                                                                                                                   SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: TARGET NUMBER OF SEQUENCES: 241
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                                                                                                       CLASSIFICATION: 514
PRIOR APPLICATION DATA:
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PPLICANT: SCHNEIDER, DAN
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                                                                                                                                        APPLICATION NUMBER: FILING DATE: 03 MA
                                                                                                                                                                                                 COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
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                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                          E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite
                TE: 11-JUNE-1990
CATION DATA:
                                                                                                                                                                                                                                                                                USA
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                                                                                                                                        03 MAY 1995
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                                           07/536,428
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07/964,624
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Pred. No.
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; OTHER INFORMATION:
US-08-433-126A-59
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Best Local S
Matches 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                APPLICATION NUMBER: 07/964,624
FILLING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX31
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
                                                                                                                                   APPLICATION NUMBER: 07/53/
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                               SOFTWARE: WordPerfect CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskett
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 8400 E. Prentice Avenue, Suite 200 CITY: Englewood STATE: Colorado
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 03 MAN
                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM pc compatible
OPERATING SYSTEM: MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
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TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                 WordPerfect 6.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Swanson & Bratschun, L.L.C.
(303) 793-3333
                                                                                                                                                                                                                                                                         UMBER: US/08/433,124A
03 MAY 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                      Diskette,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      All C's are 2'-F cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    All U's are 2'-F uracil
                                                                                                                       07/964,624
                                                                                                                                                                        07/536,428
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Pred. No. 56;
                                    NEX31.2
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US-08-976-413A-59/c
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                                              TELEFAX: (303) 793-3433
INFORMATION FOR SEQ ID NO: 5
SEQUENCE CHARACTERISTICS:
LENGTH: 87 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 87 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/433,124
FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: WordPerfect CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                 APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
FILING DATE: 11-JUNE
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: GOLD, LARRY
APPLICANT: SPECK, ULRICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: STEPHENS, ANDREW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION:
                                                                                                                                                                                            REGISTRATION NUMBER: 33, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM pc
OPERATING SYSTEM:
                                                                                                                                                         TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET MBER OF SEQUENCES: 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match 65.0%; Score 13; Local Similarity 100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: All U's are 2'-F uracil
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
OTHER INFORMATION: All C's are 2'-F cytosine
                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/976,413A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DDRESSEE:
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o. 6127119
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                                                                                                                                                                                                                               Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCGATGCAGGGG 38
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                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IBM pc compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-NOVEMBER-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Diskette, 3 1/2 diskette, 1.44 MG
                                                                                                                                                                                                                                                                                                                       11-JUNE-1990
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                                                                                                                                        793-3433
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                                                                                                                                                                                                                                                                                                                                        07/536,428
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RESULT 12
PCT-US96-06059-59/c
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CT-US96-06059-59
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Best Local (
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                                                                                                                                                                                                                                                                           TELEFAX: (303) 793-343
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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APPLICATION UDATA:
APPLICATION NUMBER: 07/964
FILING DATE: 21-OCTORORY
ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNEY/ATTORNE
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/4:
FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
                       FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,
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MEDIUM TYPE: Diskett
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/53
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                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                         OTHER INFORMATION: All C's are 2'-F cytosine
                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                          TOPOLOGY: linear
                                                                                                                                                                                                                       LENGTH: 87 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
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Colorado
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13; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STEPHENS, ANDREW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Swanson & Bratschun, L.L.C.
00 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                                                                                                                                                                               (303)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-OCTOBER-1992
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                                                                                                                                                                                            single
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100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                               793-3333
                              All U's
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07/964,624
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                              are 2'-F uracil
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US-09-005-069-91/c
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US-08-630-822A-91/c
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                                                                                                                                                     Sequence 91, Application US/09005069
                                                                                                                                                                                                                                                                                                               Matches
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Best Local
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APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTER, SHIRLEY WU
APPLICANT: WALLENFELS, LYNDA
TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS
TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
                            GENERAL INFORMATION:
APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTER, SHIRLEY WU
APPLICANT: HALLENFELS, LYNDA
TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS
TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (303)
INFORMATION FOR SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: CONNELL, GARY J.
REGISTRATION NUMBER: 32,020
REFERENCE/DOCKET NUMBER: 261
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 863-9700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/630,822A
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
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ATTORNEY/AGENT INFORMATION:
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 NUMBER OF SEQUENCES: 1
                                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleionstrandEdNESS:
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(307 Th NO: 91:
                                                                                                                                                                                                                                                                                                            65.0%; Score 13; DB ilarity 100.0%; Pred. No. 57 Conservative 0; Mismatches
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N: 435
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US-09-005-069-91
                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No. 6368846
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 40,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/630,822
FILING DATE: 11-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
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                                                                                                 ZIP: 80202

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version

CURRENT APPLICATION DATA:
                            APPLICATION NUMBER: US/09/171,156A
FILING DATE: 04-Mar-1999
CLASSIFICATION: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS AND APPARATUS TO COLLECT SUCH PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Hunter, Shirley Wu
                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           74 GTGCATCGATGCA 62
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                                                                                                                                                                                                                                           STATE: CO
NAME: Connell, Gary J.
REGISTRATION NUMBER: 32,020
                                                                                                                                                                                                                         COUNTRY: U.S.A.
                                                                                                                                                                                                                                                             CITY: DENVER
                                                                                                                                                                                                                                                                             STREET: 1560 BROADWAY, SUITE 1200
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/09171156A
                                                                                                                                                                                                                                                                                             DDRESSEE: SHERIDAN ROSS P.C.
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Gaps

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REFERENCE/DOCKET NUMBER: 2618-17-C4-PUS

TELECOMMUNICATION INFORMATION:
TELEPHONE: 303/863-9700
TELEPAX: 303/863-9700
TELEPAX: 303/863-9700
TELEPAX: 303/863-9723
INFORMATION FOR SEQ ID NO: 40:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
SEQUENCE DESCRIPTION: SEQ ID NO: 40:
US-09-171-186A-40

Query Match
Best Local Similarity 100.0%; Fred. No. 57;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps
Qy
2 GTGCATCGATGCA 14
Db 74 GTGCATCGATGCA 62

Search completed: January 20, 2004, 20:03:10
Job time: 33.4706 secs
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Minimum DB
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Pred. No. is the number of results predicted by chance to have a

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Secretary of the Department of Health and Human Services (US)	Oligodeoxymucleotide and its use to induce an immune response Patent: WO 0151500-A 32 19-JUL-2001:	Klinman, D., Ishii, K. and Verthelyi, D.	L	artificial sequences.	synthetic construct	synthetic construct		AX194432.1 GI:15385088	AX194432	Sequence 32 from Patent WO0151500.	AX194432 20 bp DNA linear PAT 28-AUG-2001		

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Oligodeoxynclectide and its use to induce an immune response
Patent: WO 0151500-A 72 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 494 13-DEC-2001;
Biosynexus Incorporated (US)
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AX465382
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic HDR"
/note="Synthetic HDR"
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/db_xref="taxon:32630"
/note="Synthetic HDR"
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Sequence 55
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Wond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 55 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Vaccine against RSV
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Sequence 52 from Patent
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AX465384.1 GI:21899747
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonuclectide"
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/mol type="genomic DNA"
/mol xref="taxon:32630"
/note="Synthetic oligonucleotide"
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AX465388
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                                                                  Mond, J.J., Prince, G. and Klinman, D.M. Vaccine against RSV Patent: WO 0211761-A 61 14-FEB-2002; HENRY M. JACKSON FOUNDATION FOR THE A
                                                                                                                                                                                                    Sequence 61 from Patent
AX465393
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Vaccine against RSV
Patent: WO 0211761-A 56 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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/mol xref="taxon:32630"
/note="Synthetic oligonucleotide"
/note 1 g 3 t
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/organism="synthetic construct"
/mol_type="genomic DNA"
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/mol_type="genomic DNA"
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RESULT 15
AX465422
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ORGANISM
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AUTHORS
TITLE
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Search completed: January 20, 2004, 20:43:21 Job time: 708.059 secs
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Sequence 90 from Patent WO0211761.
AX465422
                                                                                   1 GGTGCATCGATGCAGGGGGG 20
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Vaccine against RSV
Patent: WO 0211761-A 90 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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/mol type="genomic DNA"
/mol type="taxon:32630"
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Immunoreactive CpG
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ALIGNMENTS

RESULT 1 AAS09582 26-SEP-2001 (first entry) AAS09582 standard; DNA; 20 BP

Immunoreactive CpG sequence-containing oligonucleotide #32.

CpG sequence; immune response; non-B cell activation; interferon gamma; IPN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss. 14-JAN-2000; 2000US-0176115 12-JAN-2001; 2001WO-US01122. WO200151500-A1 Synthetic. 19-JUL-2001.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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RESULT 2
AAS09584
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Matches 20
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                                                                                                                                       CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
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                                                                                                                          Anthrax;
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Best Local
                                                CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 5; Page 32; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             symptoms resulting from exposure multiple CpG sequences -
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                                   Leishmania;
                                                                                                                                                                                                               Immunoreactive
                                                                                                                                                                                                                                                  26-SEP-2001
                                                                                                                                                                                                                                                                                     AAS09587;
                                                                                                                                                                                                                                                                                                                        AAS09587 standard; DNA; 20
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                                   Ebola; Anthrax;
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                                                                                                                                                                                                               CpG sequence-containing oligonucleotide
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                                     Listeria; ss.
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Pred. No.
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oligodeoxynucleotides for inducing an immune response to treat an prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
CpG sequence; immune response; non-B cell activation; interferon gamm IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhintit; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                                                       26-SEP-2001 (
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                                                                                                                                                                                                                                            Immunoreactive CpG sequence-containing oligonucleotide #38.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                               (first entry)
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                                                                                                         infection;
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26-SEP-2001

(first entry

CpG sequence; immune response; non-B cell activation; interferon gamma;

Immunoreactive CpG sequence-containing oligonucleotide #43

RESULT

AAS09593

AAS09593 standard;

DNA;

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                                                                                                                                             Query Match
Best Local S
Matches 20
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                                                                                                                                                                                                                                                                                           Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                       Anthrax and Listeria.
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                                                                                                                                                 20;
                                                                                                                                                                                   Similarity
                                                                    GGTGCATCGATGCAGGGGGG 20
GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                 Conservative
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Pred. No. 0
                                                                                                                                                     Mismatches
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RESULT 6
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CC The ODN are useful for inducing an immune response, preferably a cell-
CC mediated immune response, involving non-B cell activation, interferon

CC gamma (IFN-gamma) production or a humoral immune response involving B

CC cell activation, antibody and interleukin-6 production in a host, for

CC cracer, e.g. solid tumour cancer, a disease associated with the immune

CC cancer, e.g. autoimmune disorder or an immune system deficiency, infection

CC or a symptom resulting from exposure to bio-warfare agent in a human. The

CC used in antisense therapy. The ODN are useful for treating, preventing or

CC coryza, hay fever, bronchial asthma, urticaria (hives), food allergies

CC against hepatitis A, B and C, human immunodeficiency virus (HIV) and

CC multiple sclerosis, infections including francisella, schistosomiasis,

CC tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and

CS symptoms resulting from exposure of bio-warfare agent, including Ebola,

CC huthray and tisteria
                                                                                                                                                                                                                                                                                                                                                                       Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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                            AAS09622;
                                                                                     AAS09622 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Listeria.
                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP; 3 A; 3 C;
                                                                                         DNA;
                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 20; 100.0%; Pred. No.
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                                            Matches
                                                              Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple solerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oligodeoxynucleotides for inducing an immune response to treat an prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                          Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 5; Page 39; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Klinman D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-JAN-2000; 2000US-0176115
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-SEP-2001 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunoreactive CpG sequence-containing oligonucleotide
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                                            20;
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                                                              Similarity
                                                                                                                                                                    and Listeria.
    GGTGCATCGATGCAGGGGG
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                                                                                                                          BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                          Conservative
                                                                100.0%;
                                            0
                                                              Score 20;
Pred. No.
                                               Mismatches
                                                                    0.075;
                                                                                   DB 22;
                                            0
                                                                                   Length 20;
                                               Indels
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                                               Gaps
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The invention relates to novel immunogenic CpG oligodeoxynucleotides CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long CC and comprise one of the generic sequences 5'-NNNT-CpG-NNN-3' or CC 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotide delivery complex comprising an oligonucleotide delivery complex comprising an oligonucleotide of the CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotide of the CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence composition composition composition cc comprising the oligonucleotide of the sequence 5'-NNNT-CpG-WNN-3' being able to induce a cell-mediated (T-cell) response or a humoral CC cell, antibody response, with oligonucleotides of the sequence 5'-NNNT-CpG-WNN-3' being able to induce a humoral CC cetter on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural CC cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is constituted is administered either alone or in combination with an CC useful for treating, preventing or ameliorating an allergic reaction CC which may be treated include ezema, allergic conditions which may be treated include viral, bacterial, fungal and confections which may be treated include viral, bacterial, fungal and confections which as tuberculosis, AIDS, leishmania and in the confections which as tuberculosis, AIDS, leishmania and the confections which as tuberculosis, AIDS, leishmania and confections which may be treated include viral, bacterial, fungal and confections which were response to the used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cyrokine release; natural killer cell; NK cell activation; cell-mediated immune response; natural kresponse; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa: parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiamtimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel oligonucleotides us allergies, cancer, and a symptoms resulting from
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                         schistosomiasis. Immune response induction may also be used treatment of an autoimmune disorder (e.g., lupus erythemato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-006880/01.
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ISHII K.
VERTHELYI D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Page
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O
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         useful for the prevention and treatment of autoimmune disorders and for ameliorating exposure to a bio-warfare agent
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  eclerosis)
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                    lupus erythematosus
    associated
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immune system deficiency, and symptoms resulting from exposure to agent of biological warfare. An immunogenic CpG oligonuclectide, e alone or in combination with an anti-cancer agent, is useful for t solid tumour cancer. The induction of an immune response is used i antisense therapy and to improve the efficacy of a vaccine. The producing activated lymphocytes which are then administered to the present sequence represents an immunogenic CpG oligodeoxynucle of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                    CGG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; Cycokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
                                                                                                                       Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                                                      (KLIN/)
(ISHI/)
(VERT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAC80614 standard; DNA;
                                                                                                                                                                                                Klinman
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                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                  antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                           immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunogenic
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                                                                                                                                                                                                                                   KLINMAN D.
ISHII K.
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                                                                                                                                                                                                                         VERTHELYI D.
                                                                                                                     resulting from exposure
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                                                                                                                                                                                              Ishii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CpG oligodeoxynucleotide,
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                                                                                                                                                                                                                                                                         99US-0128898
                                                                                                                                                                                                                                                                                                                                                                                                 dermatological;
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The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an

complex

comprising

Of C

symptoms

Claim

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Page

29;

46pp; English.

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RESULT 9
AAC80617
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention and a targetting agent, and a pharmaceutical composition comprising the oligonuclectide delivery complex. The oligonuclectides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonuclectides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those
                                                                                                                                                                                                                                                                                                                                                                              parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
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12-APR-1999;
                                                                       12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                                  WO200061151-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:37.
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Pred. No. 0.075;
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SAXAXE

14-FEB-2001 AAC80618;

(first entry)

RESULT 10

AAC80618 standard; DNA;

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1 GGTGCATCGATGCAGGGGGG 20

Matches Query Match

20;

Conservative

0

Mismatches

Local

Similarity

100.0%; Score 20; DB 22 100.0%; Pred. No. 0.075;

22; 0

Length 20;

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Gaps

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Sequence 20

BP; 3 A;

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11 G; 3

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other;

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cc acts on antigen-presenting cells (e.g., macrophages and dendritic cc cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by cativation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction cc ligonucleotide is administered either alone or in combination with an culticaria, food allergies and other actoric conditions, and the crimary be treated include ecrema, allergic rhinitis, hayfever, cc which may be treated include ecrema, allergic rhinitis, hayfever, cc which may be treated include viral, bacterial, fungal and cf protozoal infections such as tuberculosis, AIDS, leishmania and cc inmune system deficiency, and symptoms resulting from exposure to an autoinmune disorder (e.g., lupus erythematosus, cr rheumatoid arthritis and multiple sclerosis), a disease associated with capent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating conducing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligonucleotide is preferably administered to lymphocytes ex vivo, confidency represents an immunogenic cpG oligodeoxynucleotide of the host.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNN-3' or C'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the Coligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an Coligonucleotide delivery complex comprising an oligonucleotide of the Crawention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral C (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral crestonse. It is thought that after administration, the oligonucleotide of the sequence acts of the sequence acts of the sequence of the sequenc
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(ISHI/)
(VERT/)
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) ISHII K.
) VERTHELYI D.
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Immunogenic CpG oligodeoxymucleotide, SEQ ID NO:38
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CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; ALDS; autoimmune disease; hupus crythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic

WO200061151-A2

19-OCT-2000

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

(KLIN/) KLINMAN D. (ISHI/) ISHII K. (VERT/) VERTHELYI D.

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -

Claim 4; Page 30; 46pp; English.

CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'.NNNT-CyG-WNNN-3' or 5'.RV.CyG-RV-3'. The central CyG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'.RV.CyG-RV-3' being able to induce a cell-mediated response, and those of the sequence 5'.RV.CyG-RV-3' being able to induce a cell-mediated of exponse, and those of the sequence 5'.RV.CyG-RV-3' being able to induce a cell-mediated of exponse, and those of the sequence of the sequence 5'.RV.CyG-RV-3' being able to induce a cell-mediated or statistic cells, which then release cytokines, leading to activation of natural for treating, preventing cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural for treating, preventing or ameliorating an allergic reaction cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural propose is cell-mediated or humoral response is cell-mediated or humoral response is cell-mediated for treating, preventing or ameliorating an allergic reaction cells. The infectious agent of an allergic conditions with an other atopic conditions, hayfever, with the cell-mediated include viral, bacterial, fungal and protozoal infections such as tuberculosis, ALDS, leishmania and the immune system deficiency, and symptoms resulting from exposure to an endought to an autoimmune disorder (e.g., lupus cythematosus, creating the state of the colline of a disease associated with cells of the colline of the colline of a disease ass

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Best Local :
The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'.NNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-MNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide
                                                                                                                                                                                                                                                                                    Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CgG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; nifection; bacterial; viral; fungal; protozoa. parasitic; tuberculosis; AIDS; autoimmune disease; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immune deficiency; biological warfare agent; cytostatic; antiarthritic;
intimicrobial; antiallergic; protozoacide; tuberculostatic;
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ISHII K.
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Pred. No.
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WPI; 2001-006880/01.

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CC eachs), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC activation of T- or B-cells. The induction of an immune response is CC (useful for treating, preventing or ameliorating an allergic reaction CC (preferably asthma), or an infection, where an immunogenic CpG CC oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, CC urticaria, food allergies and other atopic conditions, and the protozoal infections such as tuberculosis, AIDS, leishmania and CC schistosomiasis. Immune response induction may also be used in the creatment of an autoimmune disorder (e.g., lupus erythematosus, CC rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either CC aligonucleotide is preferably administered of a vaccine. The coligonucleotide is preferably administered to lymphocytes ex vivo, of the present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention.
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Best Local (
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                Klinman D,
                                                                  (KLIN/)
(ISHI/)
                                                                                                                    12-APR-1999;
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                                                ) KLINMAN D.
) ISHII K.
) VERTHELYI D.
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Pred. No. 0.075;
Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                    protozoal;
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RESULT 13
ABK46460
ID ABK46
XX
AC ABK46
XX
DT 05-JI
XX
Immur
XX
Immet
KW unmet
KW viral
KW viral
KW viral
KW bronk
XX

Immunostimulatory

unmethylated

CpG oligodideoxynucleotide

#50.

05-JUN-2002 ABK46460;

(first entry)

ABK46460 standard;

DNA;

20

unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.

밁 S

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Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
                                                                                                                                                                           Claim 4; Page 35; 46pp; English.
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cc acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by cartivation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction cell (preferably asthma), or an infection, where an immune presponse is cell-mediate red either alone or in combination with an cell conditions which may be treated include ezema, allergic ribinitis, hayfever, cell curticaria, food allergies and other atopic conditions, and the cell-mediate red either alone or in combination with an cell grotozoal infections such as tuberculosis, AlDS, leishmania and cell grotozoal infections such as tuberculosis, AlDS, leishmania and cell semantoid arthritis and multiple sclerosis), alDS, leishmania and cell immune response induction may also be used in the cell-mediate of biological warfare. An immunogenic CpG oligonucleotide, either agent of biological warfare. An immunogenic CpG oligonucleotide, either cell-mediate of preferably administered to lymphocytes ex vivo, cell-mediate and comprove the efficacy of a vaccine. The oligonactivated lymphocytes which are then administered to the host. The concerns an immunogenic CpG oligonactivated bymphocytes which are then administered to the host. The invention relates to novel immunogenic CpG oligodeoxynucleotides CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long CC and comprise one of the generic sequences 5'-NNT-CpG-NN-3' or CFG-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an CC oligonucleotide delivery complex comprising an oligonucleotide of the CC onlyonucleotide delivery complex comprising an oligonucleotide of the CC comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral CC are able to induce either a cell-mediated (T-cell) response, and those CF-RY-CpG-RY-3' being able to induce a cell-mediated response, and those CF-RY-CpG-RY-3' being able to induce a humoral CC response. It is thought that after administration, the oligonucleotide Matches Query Match Best Local Sequence 20 e present sequence represents an immunogenic CpG the invention. u 1 GGTGCATCGATGCAGGGGGG 20 20; Similarity GGTGCATCGATGCAGGGGG BP; 3 A; Conservative 3 C; 11 G; 3 T; 0 other; 100.0%; 0 Score 20; DB 22; Pred. No. 0.075; 20 Mismatches <u>.</u> Length oligodeoxynucleotide <u>,</u> 0

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RESULT 14
ABK46462
ID ABK46
XX ABK46
XX ABK46
XX Inmuur
XX Inmuur
XX Inmuur
XX Uunmet
KW Uunmet
KW Paran
KW Viral
KW Viral
KW Viral
XX Paran
KW WO200
XX WO200
XX Inmuur
XX Inmu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                               unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vacci Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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01-SEP-2000; 2000US-229307P.
                                                       10-AUG-2000;
01-SEP-2000;
                                                                                                                                           09-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunostimulatory unmethylated CpG oligodideoxynucleotide #52.
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  (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
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Larity 100.0%; Pred. No. 0.075;
Conservative 0; Mismatches 0;
                                                       2000US-224011P.
2000US-229307P.
                                                                                                                                              2001WO-US41633
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides
                                                     Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides
                                                                                                                                              Mond
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01-SEP-2000; 2000US-229307P.
                                                                                                                                                                                                                                                                                                                                                                                 unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease;
                                                                                                                                                                                                                                                09-AUG-2001; 2001WO-US41633
                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                   bronchopulmonary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 4; Page 8; 30pp; English.
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                          Claim 4; Page 8; 30pp; English.
                                                                                                                  WPI; 2002-227118/28.
                                                                                                                                                                         (JACK-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunostimulatory unmethylated CpG oligodideoxynucleotide
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                                                                                                                                           Prince G,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                         FOUND ADVANCEMENT MILITARY
                                                                                                                                                                                                                                                                                                                                                                   tis; pneumonia; infectious pulmonary disease; dysplasia; congenital heart condition; ss.
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by guanine
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The invention describes a vaccine comprising one or more epitopes of a

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Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
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Query Match 100.0%; Score 20; DB 24; Best Local Similarity 100.0%; Pred. No. 0.075; Matches 20; Conservative 0; Mismatches 0; Length 20;

Indels ,

Gaps

0

1 GGTGCATCGATGCAGGGGGG 20 |||||||||||||||||||||||||||| 1 GGTGCATCGATGCAGGGGGG 20

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Search completed: January 20, 2004, 18:51:34 Job time: 123.235 secs

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/cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUB.seq:*
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/cgn2_6/ptodata/1/pubpna/US10B_PUB.seq:*
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6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*
6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
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6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

No.	Score	Match Length	ength	B	ID	1 3
_	20	100.0	20	13	US-10-194-035-32	Sequence 32
2	20	100.0	20	13	US-10-194-035-34	Sequence 34
w	20	100.0	20	13	US-10-194-035-37	
4	20	100.0	20	13	US-10-194-035-38	
_ω	20	100.0	20	13	US-10-194-035-43	Sequence 43
6	20	100.0	20	13	US-10-194-035-72	Sequence 72
7	20	100.0	20	15	US-10-068-160-1	Sequence 1,
œ	20	100.0	20	15	US-10-068-160-54	Sequence 54
9	19	95.0	19	13	US-10-194-035-53	Sequence 53
10	19	95.0	19	13	US-10-194-035-73	
11	18	90.0	18	15	US-10-068-160-12	Sequence 12
12	18	90.0	20	15	US-10-068-160-38	Sequence 38
13	17	85.0	17	13	US-10-194-035-27	Sequence 27
14	16	80.0	16	13	US-10-194-035-71	Sequence 71
7	15	7,0	20	15	US-10-068-160-65	Sequence 65,

RESULT 2

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US-09-978-643A-294	US-09-978-187B-294	US-09-978-757A-294	US-09-999-830A-294	US-09-978-193A-294	US-09-978-423A-294	US-09-918-585A-294	US-09-978-824-294	US-09-981-915A-294	US-09-999-833A-294	US-09-978-564A-294	US-09-978-403A-294	US-09-978-191A-294	US-09-978-585A-294	US-09-978-608A-294	US; 09-978-189-294	US-09-999-832A-294	US-09-978-192A-294	US-09-978-697-294	US-09-978-295A-294	-10-068-16	US-10-068-160-44	US-10-068-160-38	US-10-068-160-26	-10-068-160	US-10-194-035-102	US-10-194-035-82	US-10-194-035-81	-035-	US-10-068-160-16
Sequence 294, App	e 294,	Sequence 294, App	e 294,	294,	e 294,	e 294,	294,	Sequence 294, App	e 294,	294,	294,	e 294,	294,	294,	294,	Sequence 294, App	294,	294,	294		e 44,	е 38,	e 26		10	e 82		Sequence 40, Appl	

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                                                                                                                                                                                           SEQ ID NO 32
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                            Matches
                                                                                            Query Match
Best Local S
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                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILLING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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1 GGTGCATCGATGCAGGGGGG 20
                            1 GGTGCATCGATGCAGGGGGG 20
                                                                            20;
                                                                                                Similarity
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                                                                            Conservative
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                                                                          100.0%; Score 20; DI
100.0%; Pred. No. 0.0
tive 0; Mismatches
                                                                                              DB 13;
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                                                                                                             Length 20;
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                                                                                                                                                                    ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-37
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Publication No. US20030144229A1
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SEQ ID NO 34
LENGTH: 20
                                                                                             Matches
                                                                                                           Query Match
Best Local Similarity
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SEQ ID NO 37
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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CURRENT FILING DATE: 2002-07-12
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                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: PCT/US01/01122 PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE
FILE REFERENCE: 4239-63317
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 119
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                        FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                             20;
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               GGTGCATCGATGCAGGGGGG 20
                                                     GGTGCATCGATGCAGGGGGG 20
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                                                                                         Score 20; DB 13;
Pred. No. 0.036;
); Mismatches 0;
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Pred. No. 0.036;
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                                                                                                                               Length 20
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                                                                                                                                                    ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-43
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LENGTH: 20
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Best Local :
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                                                                          Matches
                                                                                                          Query Match
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
TITLE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                      EQ ID NO 43
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENERAL INFORMATION:

THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: THE GOVERNMENT OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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Pred. No. 0.036;
Mismatches
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Pred. No.
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                                                                                                                                                          ; OTHER INFORMATION: Oligonucleotide US-10-068-160-1
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Best Local Similarity
                                                                              Matches
                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                            SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Publication No. US20030060440A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/10068160
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SEQ ID NO 72
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Publication No. US20030144229A1
                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN
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APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
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NUMBER OF SEQ ID NOS: 119
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                                                                                                                                                                                                     TYPE: DNA ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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GGTGCATCGATGCAGGGGG 20
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Pred. No. 0.036;
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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Oligonucleotide
US-10-068-160-54
                                                                                                                                      ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-53
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 54
LENGTH: 20
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                                                                                                  Query Match
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
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CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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                                                                                                                                                                                  TYPE: DNA ORGANISM: Artificial Sequence
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                                                                   Conservative
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AND HUMAN SERVICES
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US-10-068-160-12
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RESULT 12
US-10-068-160-38
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Publication No. US20030114229A1
GENERAL INFORMATION:
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SEQ ID NO 12
LENGTH: 18
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Publication No.
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APPLICANT: VERTHELYI, Daniela
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE
FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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CURRENT FILING DATE: 2002-07-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
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Local Similarity 100.0%; Pred. No. 0.14;
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KLINMAN, De
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US-10-194-035-27; Sequence 27, Ap; Publication No.
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-38
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SEQ ID NO 38
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
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SEQ ID NO 27
LENGTH: 17
TYPE: DNA
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Best Local Similarity
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Best Local (
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PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: BATTER 120
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CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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nes 17; Conserv
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o. US20030144229A1
                                                                     Conservative
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100.0%; Pred. No.
tive 0; Mismatc
                                                                                    85.0%; Score 17; DB 13; 100.0%; Pred. No. 1.9;
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RESULT 14 US-10-194-035-71

Application US/10194035

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FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 65
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
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Best Local Similarity
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Search completed: January 20, 2004, 20:51:01 Job time: 133.941 secs
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-65
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US-10-194-035-71
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 71
LENGTH: 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER: COUNTY OF THE PRIOR PRIOR DATE: 2000-01-14
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APPLICANT: URETHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLICODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
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                                                                                                     TITLE
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Unpublished
Contact: Tadasu Shin-i
Center For Genetic Resource Information
National Institute of Genetics
1111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-559-81-6855
Fax: 81-559-81-6855
                                                                                                                                                                                                                           BJ193666 normalized full length cDNA library, chloronemata, caulonemata and rhizoid-like protonemata Physcomitrella patens subsp. patens cDNA clone pphn19j13 5', mRNA sequence.
BJ193666 TTTTTT
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Physcomitrella patens subsp. patens
Physcomitrella patens subsp. patens
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Bryophyta;
Bryopsida; Funariidae; Funariales; Funariaceae; Physcomitrella.
1 (bases 1 to 177)
Fujita,T., Shin-i,T., Seki,M., Kamiya,A., Uchiyama,I., Nishiyama, Carninci,P., Hayashizaki,Y., Shinozaki,K., Kohara,Y. and Hasel
                                                                                                    Comparison of the moss Physcomitrella patens genome with flowering
                                                                                                                                                                                                                   BJ193666.1
   Email: tshini@genes.nig.ac.jp
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BH019162 L242k.d H
AA066330 mm14e06.T
CB391692 OSTF156H5
AA930446 v859g06.T
CA654361 wrein.pk1
BW238122 BW238122
AW145716 ga33h05.y
BG815202 dac02d03
AA223768 zr10a06.T
AQ214130 H5 2187 E
BF293321 WHE2155_C
AQ0927254 RPCI-23-2
CA706144 wdk1c.pk0
BH605338 BOHHS53TF
CC059869 i136a09.b
BE026564 db28c05.x
BW220988 BW220988
BM720988 CFEST0064
BQ102588 MINM172 M
CC354887 PUHNQ64TB
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Bx483168 Homo sapi
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KEYWORDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished (2002)
Contact: Jiang YQ, Ma RC
Contact: Jiang YQ, Ma RC
Lab of Plant Functional Genomics
Beijing Agro-biotechnology Research Center
Banjing Cun, No.301, Haidian Dis., Beijing 100089, P.R. China
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 210 bp mRNA linear EST 01-MAY-2
EST672 almond cDNA library Prunus dulcis cDNA 5', mRNA sequence.
BQ703645
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Tel: 8610 5150 3831 Fax: 8610 5150 3980
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Jiang,Y.Q. and Ma,R.C.
Generation and Analysis of 814 Expressed Sequence Tags from Almond
(Prunus dulcis) Pistils
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Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids I; Rosales; Rosaceae; Amygdaloideae; Prunus.
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EST.
                                                                                                                                                                                                                                                                                                                                           Email: rcmal@yahoo.com
Insert Length: 210 Std Error: 0.4
Seq primer: M13/pUC reverse primer
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/clone_lib="normalized full length cDNA library, chloronemata, caulonemata and rhizoid-like protonemata"
31 c 58 g 57 t
/tissue type="pistils"
/clone_lib="almond cDNA library"
/clone_lib="almond cDNA library"
/note="Organ: flower; Vector: pZL1; Site 1: Sal I; Site 2:
Not I; Total RNAs were isolated from pistils using Trizol
reagent (Invitrogen, USA). Then, polyA+ mRNA was isolated
using oligo(dT) cellulose as described. cDNA was
synthesized using a lambda-zipLox cDNA synthesis kit(CAT
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/mol_type="mRNA"
/sub_species="patens"
/sub_species="patens"
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                                                                                                                                                                                           /mol_type="mRNA"
/db_xref="taxon:3755"
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                                                                                                                                                                                                                                             organism="Prunus dulcis"
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100.0%; Pr
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Jiang YQ, Ma RC
Lab of Plant Functional Genomics
Beijing Agro-biotechnology Research Center
Banjing Cun, No.301, Haidian Dis., Beijing 100089, P.R. China
Tel: 8610 5150 3831
Fax: 8610 5150 3980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (bases 1 to 211)
Jiang,Y.Q. and Ma,R.C.
Generation and Analysis of Expressed Sequence Tags from Almond
(Prunus dulcis) Pistils
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EST1175 almond cDNA library Prunus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: rcmal@yahoo.com
Insert Length: 211 St
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                                TGCATCGATGCAGGG 17
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                                                                                 Conservative
                                                                                                                                                                             /tissue_type="pistils"
/clone_lib="almond cDNA library"
/clone_lib="almond cDNA library"
/clone_lib="almond cDNA library"
/note="Organ: flower; Vector: pZL1; Site_1: Sal I; Site_2:
/note="Organ: flower; Vector: pZL1; Site_1: Sal I; Site_2:
Not I; Total RNAs were isolated from pistils using Trizol
Not I; Total RNAs were isolated from pistils using Trizol
reagent (Invitrogen, USA). Then, polyA+ mRNA was isolated
using oligo(dT) cellulose as described. cDNA was
synthesized using a lambda-zipLox cDNA synthesis kit (CAT
No.19643-014, Invitrogen, USA). The phage library was
converted through mass excision to a plasmid library in
the vector pZL1. The plasmid library was plated on 15-cm
LB agar plates with 100ug/mL ampicillin. Individual clones
were picked at random and propagated. The 5'ends of the
cDNA clones were sequenced on ABI Prism377 DNA sequencer."
31 a 29 c 39 g 62 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Prunus dulcis"
/mol_type="mRNA"
/db_xref="taxon:3755"
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100.0%; Pr
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Pred. No.
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6.5e+02;
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6.5e+02;
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dulcis cDNA 5',
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sequence.
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RESULT 5
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AUTHORS
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
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Insert Length: 374 Std Error: 0.00
Seq primer: CGCCAGGGGTTTCCCAGTCACGAC.
Location/Qualifiers
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NL34_G07 Drought stress (leaf)
cDNA_clone NL34_G07 3', mRNA s
CB966250
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

1 (bases 1 to 113)

Alonso, J.M., Leisse, T.J., Barajas, P., Chen, H., Cheuk, R., Gadrinab, C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., Prednis, L., Shinn, P., Zimmerman, J. and Ecker, J.R.

A Sequence-Indexed Library of Insertion Mutations in the Arabidopsis Genome
                                                                                                                                                                                                                                                                                      BH861949 113 bp DNA linea SALK 088338 Arabidopsis thallana TDNA insertion thallana genomic clone SALK_088338, genomic surv
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EST.
                                                                                                                                                                                         Arabidopsis thaliana (thale cress)
Arabidopsis thaliana
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Department of Plant Sciences,
University of Hyderabad
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Chandra Sekhar,A., Bennetzen,J.L., Ramakrishna,W. and Reddy,A.R.
ESTs from a normalized cDNA library of drought stressed rice
seedlings (Oryza sativa L.cv Nagina 22)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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/dev_stage="35 day-old seedlings"
/clone_lib="Double stress (leaf)"
/note="Organ: Leaf; Vector: T7T3Pac; ESTs from normalized
leaf cDNA Library from drought stressed seedlings "
113 c 82 g 73 t
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/db_xref="taxon:39946"
/clone="NL34_G07"
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/mol_type="mRNA"
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f) Oryza sativa (indica cultivar-group)
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6.4e+02;
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Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R.,

Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F.,

Nagai,M.A., da Silva,W. Jr., Matsukuma,A., Baia,G.S., Simpson,D.H.,

Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H.,

Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V., O'Hare

M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence.
BQ380106
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                                                                                                                                                                                                                                                                     Contact: Simpson A.J.G.
Laboratory of Cancer Cenetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BQ380106 207 bp
RC1-UT0012-020800-011-a02_1 UT0012
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Proc. Natl. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Simpson, A.J.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Class: TDNA tagged
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: ecker@salk.edu
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=RC1&t2=RC1-UT0012-
                                                                                                                     Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
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                                                                                                                                                                                                   Tel: +55-11-2704922
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/clone=lib="Rarabidopsis thaliana TDNA insertion lines"
/note="FCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
a 23 c 20 g 31 t
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/mol_type="genomic DNA"
/strain="columbia 0"
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AV993468 Nori Satoh unpublished cDNA library, larva Ciona intestinalis cDNA clone cilv25g13 5', mRNA sequence.
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Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Department of Zoology
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Nori Satoh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
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/note="Organ: uterus tumor; Vector: pucl8; Site_1: SmaI;
/note="Gorgan: a mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."

a 45 c 54 g 46 t
                                                                                                                                                                                               /tissue_type="whole animal"
/dev_stage="larva"
/clone_lib="Nori Satoh unpublished cDNA library, larva"
/clone_fib="Nori Satoh unpublished cDNA library, larva"
                                                                                                                                                                                                                                                             /organism="Ciona intestinalis"
/mol_type="mRNA"
/mb xref="taxon:7719"
/clone="cilv25g13"
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/dev_stage="Adult"
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09-MAY-2003
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                                                                                                                                                                                                                                                                                                                                 3 TGCATCGATGCAGG 16
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Spermatophyta; Magnoliophyta; Liliopsida;
clade; Panicoldeae; Andropogoneae; Zea.
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BH220641
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1006096A08.x1 1006 - RescueMu Grid G Zea mays genomic, genomic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: walbot@stanford.edu
Plate: 1006096 row: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tel: 650 723 2227
Fax: 650 725 8221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Department of Biological Sciences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Maize genomic sequences found using Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zea mays
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Walbot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Walbot, V.
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                                                                                                                                                                                                          standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /lab_nost="bridge" / lab_nost="bridge" / clone lib="1006 - RescueMu Grid G" / clone lib="1006 - RescueMu (engineered from pBlueScript backbone); Site 1: Bamilf; Site 2: BgllI; pBlueScript backbone); Site 1: Bamilf; Site 2: BgllI; pBlueScript backbone); Modified maize Mu transposon designed to allow plasmid rescue from total genomic DNA. Mu elements insert preferentially into transcription units. For more information on RescueMu, go to the web site 'www.zmdb.iastate.edu' and follow the links for 'RescueMu,' Grid G was grown at Stanford in 2000. DNA was extracted from leaf punches, double digested using Bamili and BglII, and ligated to form circular plasmids. DH10B cells were transformed and then screened on LB plates with
                                                                                                                                                                                                                                                                                                                                                                                                                                                    cells were transformed and then ampicillin."
64 c 66 g 75 t
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/dev_stage="adult"
/lab_host="DH10B"
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/cultivar="mixed_background_W23/A188/B73"
/db_xref="taxon:4577"
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Last updated, Version 1)
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. 2.1e+03;
ches 0;
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a; Poales; Poaceae; PACCAD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequenced by GBF (National Research Centre for Biotechnology Ltd., Braunschweig/Germany) within the cDNA sequencing consortium of the German Genome Project.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This clone (DKrZp688B17235) is available at t
Please contact the RZPD: Ressourcenzentrum, F
14059 Berlin-Charlottenburg, GERMANY; Email:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Clone
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Han M., Wiemann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (07-MAY-2003) to the
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Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                     214 CATCGATGCAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       from S. Wiemann, Molecular Genome Analysis, German Cancer
rch Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de;
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                                                        Genome Research Center

Genome Research Institute of Bioscience & Biotechnology

Korea Research Institute of Bioscience & Biotechnology

For Boarn-dong Yuseong-gu, Daejeon 305-333, South Korea
                                                                                                                                                              Kim, N.S., Hann, x., V., Oh, K.J., Cheong, J.E.,
                                                                                                                                                                                   Mammalia; Eutheria;
1 (bases 1 to 292)
Kim, N.S., Hahn, Y.,
                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                      mRNA sequence.
BM856929
                                                                                                                                                                                                                                                                                                                               K-EST0141064 S21SNU520 Homo sapiens cDNA clone S21SNU520-76-D03 5',
             Email: yongsung@mail.kribb.re.kr
Plate: 76 row: D column: 03
                                                                                                                Contact: Kim YS
                                                                                                                            Unpublished
                                                                                                                                          21C Frontier Korean
                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                       BM856929.1 GI:19213328
                                            Fax: +82-42-860-4409
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quality sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/organism="Homo sapiens"
/clone="DKFZp686B17235"
/clone_lib="686 (synonym: hlcc3). Vector pSport1_Sfi; host
DH10B; sites SfiIA + SfiIB"
/dev_stage="adult"
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Pred. No.
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                                                                                                                                                                    Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
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clone@rzpd.de
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BW097424 Nori Satoh unpublished cDNA
intestinalis cDNA clone rcitb058009 3
BW097424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ciona intestinalis
                                                                                                                                                                                                                                                                                              Contact: Nori
Department of
                                                                                                                                                                                                               Sakyo-ku, Kyoto, Kyoto 606-8502,
Tel: 81-75-753-4081
Fax: 81-75-705-1113
                                                                                                                                                                                                                                                                                                                                                     Satou, Y., Shin-i, T., Kohara, Y. and Satoh, N. Expressed genes in Ciona intestinalis (2002c)
                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Urochordata; Phlebobranchia; Cionidae; Ciona.
                                                                                                                                                                                                                                                                          Kyoto University
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                                                                                                                                                                                           satoh@ascidian.zool.kyoto-u.ac.jp
                                                                            /organism="Ciona intes
/mol_type="mRNA"
/db_xref="taxon:7719"
/clone="rcitb058009"
/tissue_type="whole animal"
/dev_stage="tailbud embryo"
/clone_lib="Nori Satoh unput
embryo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="Stomach"
/cell_type="Floating_aggregates"
/cell_line="SNU-520"
/clone_tib="S21SNU520"
/clone_lib="S21SNU520"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="mRNA"
/db_xref="taxon:9606"
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                    Satoh unpublished
                                                                                                                                       intestinalis"
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2.1e+03;
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                        cDNA library,
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49143 MARC 1PIG Sus scrofa cDNA
AW415097 GI:6942979
EST.
BH019162
352 bp DNA linear GSS 25-MAY-2
L242k.d_HygT3.1 Leishmania major Friedlin Cosmid Genomic Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus. 1 (bases 1 to 329)
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                                                                                                                                                                                                                                                                                                                                                                                                        FORWARD: AGGAAACAGCTATGACCAT
BACKWARD: GTTTTCCCAGTCAGACGA
BACKWARD: TOW: N COLUMN: 24
Plate: 23 TOW: N COLUMN: 24
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and trimmed with phred
v0.980904.e. Vector identified by cross_match with the -min
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Porcine gene discovery by normalized cDNA-library sequencing and EST cluster assembly Mamm. Genome 13 (8), 475-478 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pahrenkrug,S.C., Smith,T.P.L., Freking,B.A.,
Vallet,J., Wise,T., Rohrer,G.A., Pertea,G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sus scrof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: 402 762 4366
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sus scrofa (pig)
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                                                                                                                                                                                                                                                                                                   /organism="Sus scrofa"
/mol type="mRNA"
/db_xref="taxon:9823"
/tissue_type="pooled"
/lab_host="DH108"
                                                                                                                                                                                                                          /clone lib="MARC 1PIG"
/clone lib="MARC 1PIG"
/note="Vector: pCMV SPORT6; Site 1: Not1; Site 2: Sal1;
Library made from pooled tissue From day 11, 13, 15, 20,
and 30 embryos."
a 89 c 93 g 72 t
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                                                                                                                                                Score 14; DB 9; I; Pred. No. 2.1e+03; 0; Mismatches 0;
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                                                      mm14e06.rl Stratagene mouse diaphragm (#93 clone IMAGE:521506 5' similar to gb:X03208
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                                                                                                                                                         Mus musculus (house mouse)
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Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Myler PJ
Seattle Biomedical Research Institute
4 Nickerson Street, Seatttle, WA 98109-1651,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Myler,P.J., Vogt,C., Cawthra,J., Klacking,M., Marty,A., Mack,J., Munden,H., Nguyen,D., Robertson,L., Sisk,E., Fazelinia,G., Aggarwal,G., Nelson,S., Seyler,A., Worthey,E. and Stuart,K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Leishmania major genomic clone L242k, BH019162
              Waterston, R.
The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                        (MOUSE);, mRNA sequence.
AA066330
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Seq primer: HygT3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="Vector: CLHYG; Site_1: BamHI; Genomic DNA from Leishmania major Friedlin was partially digested with Sau3AI, size selected, and ligated with BamHI-digested cLHYG cosmid vector DNA. 9216 clones were picked and arrayed. Library construction is described in Ivens et al., Genomics Research, 8:135-145 (1998). The CLHYG vector (Acc. No. CUU59231) is described in Ryan et al, Gene, 131:145-150 (1993)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="Leishmania major Friedlin Cosmid Genomic
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/strain="Friedlin"
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                                                                                                                                                                                                           GI:1563400
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0; Mismatches 0;
                                               Lennon, G.,
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                                               Soares, B.,
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(#937303) Mus musculus cDNA
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Reboul, J., Vaglio, P., Rual, J.F., Lamesch, P., Martinez, M., Armstrong, C.M., Li,S., Jacotot, L., Bertin, N., Janky, R., Moore, T., Hudson, J.R., Hartley, J.L., Brasch, M.A., Vandenhaute, J., Boulton, S., Endress, G.A., Jenna, S., Chevet, E., Papasotiropoulos, V., Tolias, P.P., Ptacek, J., Snyder, M., Huang, R., Chance, M.R., Lee, H., Doucette-Stamm, L., Hill, D.E. and Vidal, M.

C. elegans ORFeome version 1.1: experimental verification of the genome annotation and resource for proteome-scale protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14;
Email: Marc Vidal@dfci.harvard.edu
Sequence tag of Gateway entry clones. The primers used were
designed on the predicted protein encoding ORF. C. elegans ORFeome
cloning project : Contact david_hill@dfci.harvard.edu or
                                                                                            Dana Farber Cancer Institute
1 Jimmy Fund Way Smith 858, BOSTON, MA 02115, USA
Tel: 617 632 5180
Fax: 617 632 5739
                                                                                                                                                                                                               Nat. Genet., (20
Contact: Vidal M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
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Location/Qualifiers
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Fax: 314 286 1800
Email: mouseest@watson.wustl.edu
Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
TMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
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WashU-HHMI Mouse EST Project
                                                                                                                                                                                              Marc Vidal Laboratory
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/note="Organ: diaphragm; Vector: pBluescript SK.; Site 1:
EcoRI; Site 2: Kho!; Cloned uniditrectionally from mRNA
prepared from diaphragm muscle. Primer: Oligo dT. Average
insert size: 1.5 kb. Uni-ZAP XR Vector; ~5' adaptor
sequence: 5' GAATTCGGCACGAG 3' ~3' adaptor sequence: 5' GAATTTTTTTTTTTTTTT 3'"
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/dev_stage="adult"
/lab_host="SOLR (kanamycin resistant)"
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'db_xref="taxon:10090"
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Search completed: January 20, 2004, Job time: 1235.76 secs
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                                                                                                                                                          Similarity
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                                                                                                                                      Conservative
                                                                                                                                                                                                                      /sex="Hermaphrodite and male"
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RNA isolated from both hermaphrodite and male N2 worms of
all lavala stages, embryos, adults and dauers and the
subsequent generation of cDNAs by poly(A) priming. The
cDNAs were cloned into pPC86"
a 60 c 80 g 107 t
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/strain="N2"
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Pred. No. 18 the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No. Score Query Match 100 Length B XX194432 XX194437 XX194438 XX194443 XX194443 XX194473 XX1952242 XX352242 XX465387 XX465388 XX465388 XX465388 XX465393 XX465221 XX352214 XX3522167 XX352237 XX194500 XX19 AX19443 AX194198 AX352198 AX352209 AX465382 AX465388 AX465388 AX465388 AX465388 AX465388 AX465388 AX352204 AX352214 AX352211 AX352231 AX465433 AX194481 AX194481 AX194500 AX19500 Description 7 Sequence 5 Sequence 0 Sequence 7 Sequence 3 Sequence 3 Sequence 3 Sequence 3 Sequence 2 Sequence 8 Sequence 9 Sequence 2 Sequence 2 Sequence 4 Sequence 7 Sequence 8 Sequence 8 Sequence 9 Sequence 1 Sequence 1 Sequence 1 Sequence 1 Sequence 1 Sequence 1 Sequence Sequence

ALIGNMENTS

SOURCE ORGANISM

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                                                                     Klinman,D., Ishii,K. and Verthelyi,D. Oligodeoxynucleotide and its use to induce an Patent: WO 0151500-A 37 19-JUL-2001; Secretary of the Department of Health and Human Location/Qualifiers
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/note="Synthetic DNA"
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AX194472
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AX194472
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 72 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
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   AX352209
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/mol type="genomic DNA"
/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic HDR"
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/db_xref="taxon:32630"
/note="Synthetic DNA"
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 538 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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synthetic construct
artificial sequences.
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|mol type="genomic DNA"
|/mol type="genomic DNA"
|/db_xref="taxon:32630"
|/note="Synthetic HDR"
|/note="Synthetic HDR" 3 t
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/nofe="Synthetic HDR"
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Vaccine against RSV
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Sequence 52 from Patent WO0211761.
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AX465384.1 GI:21899747
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Mond, J.J., Prince, G. and Klinman, D.M.
Vaccine against RSV
Patent: WO 0211761-A 55 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonucleotide"
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/mol type="genomic DNA"
/mol xref="taxon:32630"
/note="Synthetic oligonuclectide"
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Mond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 56 14-FEB-2002,
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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                                                                                Mond, J.J., Prince, G. and Klinman, D.M. Vaccine against RSV Patent: W0 0211761-A 61 14-FEB-2002; HENRY M. JACKSON FOUNDATION FOR THE A
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Vaccine against RSV
Patent: WO 0211761-A 90 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Search completed: January 20, 2004, 17:14:58 Job time: 707.471 secs

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SUMMARIES

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Immunogenic CpG ol	Immunogenic CpG ol	Immunoreactive CpG	Description					

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ALIGNMENTS

RESULT 1 AAS09582 AAS09582 standard; DNA; 20 BP 26-SEP-2001 AAS09582; Immunoreactive CpG sequence-containing oligonucleotide #32. (first entry)

CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; hupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; acquired immunodeficiency syndrome; AIDS;

Synthetic.

WO200151500-A1

19-JUL-2001.

12-JAN-2001; 2001WO-US01122.

14-JAN-2000; 2000US-0176115.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligodeoxynuclectides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for
                                                                                                                                                                                                                                                                                                                  hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CpG sequence; immune response; non-B cell activation; interferon gamma; IPN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania are symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including Ebola symptoms resulting from exposure of bio-warfare agent, including the exposure of bio-warfare agent of
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Pred. No.
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concluded is different from another of the multiple CPG sequences, where one of the CPG mediated immune response, involving non-B cell activation, interferon CPG gamma (IFN-gamma) production or a humoral immune response involving B cell activation, interferon CPG cell activation, antibody and interleukin-6 production in a host, for CPG center, e.g. solid tumour cancer, a disease associated with the immune CPG symptom resulting from exposure to bio-warfare agent in a human. The CPG induction of immune response improves the efficacy of a vaccine and is CPG center, bronchial asthma, urticaria (hives), food allergies canditis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies CPG against thepatitis A, B and C, human immuned ficiency virus (HIV) and CPG multiple sclerosis, infections including Francisella, schistosomiasis, cuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and CPG purplema resulting from exposure of bio-warfare agent, including Ebola, includin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder ar symptoms resulting from exposure to bio-warfare agents, comprise
Sequence
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                                                          and Listeria.
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CpG sequences
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  BP;
  w
P
3 C;
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11 G;
3 T; 0 other;
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s immune
, infection
man. The
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밁 Ś Query Match Best Local S Matches 20 AAS09587 standard; DNA; μ 20; Similarity GGTGCATCGATGCAGGGGGG Conservative 100.0%; 20 0 Score 20; Pred. No. 20 20 Mismatches 22; 0 Length Indels 0, Gaps

0

RESULT 3
AASO95A
AASO95A
XX AASO
XX AASO
XX Immu
XX Immu
XX Immu
XX CPG
KW CPG
KW CPG
KW Cher
KW ther
KW ther
KW ther
KW heps
KW lupu
KW lupu
KW Leik
XX Schi 26-SEP-2001 Immunoreactive AAS09587 (first entry) CpG sequence-containing oligonucleotide #37.

CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; intection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS, schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS,

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RESULT 4
AASO9588
ID AASC
XX AASC
XX AASC
XX AASC
XX Immm
DE Immm
XX Cpg
KW IFN.
KW thee
KW thee
KW thee
KW corr
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KW Cyg
KW Copg
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CC The ODN are useful for inducing an immune response, preferably a cell-
CC mediated immune response, involving non-B cell activation, interferon
CC gamma (IFN-gamma) production or a humoral immune response involving B
CC cell activation, antibody and interleukin-6 production in a host, for
CC treating, preventing or ameliorating an allergic reaction, e.g. asthma,
CC cancer, e.g. solid tumour cancer, a disease associated with the immune
CC system e.g. autoimmune disorder or an immune system deficiency, infection
CC or a symptom resulting from exposure to bio-warfare agent in a human. The
CC used in antisense therapy. The ODN are useful for treating, preventing or
CC coryza, hay fever, bronchial asthma, urticaria (hives), food allergies
CC and other atopic conditions, for improving the efficacy of vaccines
CC against hepatitis A, B and C, human immunodeficiency virus (HIV) and
CC malaria, for treating immune system deficiency virus (HIV) and
CC multiple sclerosis, infections including Francisella, schistosomiasis,
CC tubervalues a somired immune diseases such as rheumatoid arthritis and
CC multiple sclerosis, infections including Francisella, schistosomiasis,
CC tubervalues a somired immunodeficiency virus (HIV) and
CC multiple sclerosis, infections including Francisella, schistosomiasis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local 9
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                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, Anthrax and Listeria.
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bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis;
coryza; hay fever; urticaria; hives; food allergy; atopic condition;
hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                AAS09588 standard; DNA; 20
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                                                                                                                                         Immunoreactive CpG sequence-containing oligonucleotide #38.
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                                                                                                  response; non-B cell activation; interferon gamma;
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SXEXEXEX

26-SEP-2001

(first entry)

CpG sequence; immune response; non-B cell activation; interferon gamma;

Immunoreactive CpG sequence-containing oligonucleotide #43

RESULT

AAS09593

AAS09593 standard; DNA;

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GGTGCATCGATGCAGGGGG

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CC The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon CC gamma (IFN-gamma) production or a humoral immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for CC treating, preventing or ameliorating an allergic reaction, e.g. asthma, CC cancer, e.g. solid tumour cancer, a disease associated with the immune CC system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The CC induction of immune response improves the efficacy of a vaccine and is CC used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or CC coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy virus (HIV) and CC exythematosus and autoimmune system deficiency virus (HIV) and CC exythematosus and autoimmune system deficiencies, e.g. lupus infections infections are such as rheumatoid arthritis and conditions infections in forticed and activatics and infections in factor of the conditions and autoimmune diseases such as rheumatoid arthritis and conditions infections in the condition are responsed in the conditions of the conditions and activations of the conditions are conditioned and activations and conditions of the conditions are conditioned and arthritis and conditions of the condition of the conditions of the conditions of the conditions
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Best Local S
Matches 20
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                                                                                                                                                          Sequence 20
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                                                                                                                                                                                                                 Anthrax and Listeria.
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                                                       20;
                                                                                  Similarity
  GGTGCATCGATGCAGGGGGG
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                                                       Conservative
                                                                               100.0%; Score 20; 100.0%; Pred. No.
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RESULT 6
AAS09622
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mediated immune response, involving non-B cell activation, interferon
gamma (IFN-gamma) production or a humoral immune response involving B
cell activation, antibody and interleukin-6 production in a host, for
treating, preventing or ameliorating an allergic reaction, e.g. asthma,
cancer, e.g. solid tumour cancer, a disease associated with the immune
system e.g. autoimmune disorder or an immune system deficiency, infection
or a symptom resulting from exposure to bio-warfare agent in a human. The
induction of immune response improves the efficacy of a vaccine and is
cused in antisense therapy. The ODN are useful for treating preventing or
ameliorating allergic reactions, including eczema, allergic rhinitis or
coryza, hay fever, bronchial asthma, urticaria (hives), food allergies
cadainst hepatitis A, B and C, human immunodeficiency virus (HIV) and
malaria, for treating immune system deficiencies, e.g. lupus
erythematosus and autoimmune diseases such as rheumatoid arthritis and
                                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania an symptoms resulting from exposure of bio-warfare agent, including Ebola Anthrax and Listeria.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleotides comprising multiple CpG sequences, where one of the Cr
sequences is different from another of the multiple CpG sequences.
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                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
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                                                                                                                                                                                                                                                                                                                      Similarity
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                                                                                                                                                                                                            GGTGCATCGATGCAGGGGGG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CpG sequences
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                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 3 A; 3 C;
                                                                                                                                                                                                                                                                                                                   100.0%; Score 20;
100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                         11 G, 3 T; 0 other;
                                                                                                                                                                                                                                                                       0;
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                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                    DB 22;
                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                       Length 20;
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AAS09622;

AAS09622 standard; DNA;

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                                                                              Matches
                                                                                                 Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder ar
                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 5; Page 39; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     prevent an allergic reaction, can
symptoms resulting from exposure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-JAN-2000; 2000US-0176115
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                                                                              20;
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                                                                                                     Similarity
                                                                                                                                                                                                    and Listeria.
                                                                                                                                                              20
                                     GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ishii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ebola; Anthrax; Listeria; ss.
                                                                                                                                                          BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CpG sequence-containing oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Verthelyi D;
                                                                                                   100.0%;
                                                                                <u>,</u>
                                                                                                   Score 20;
Pred. No.
20
                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         to bio-warfare agents, comprise
                                                                                                                        DВ
                                                                              0,
                                                                                                                      Length 20;
                                                                              Indels
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                                                                                0;
                                                                                Gaps
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of the sequence 5. NNNT-OpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rinitis, hayfever, urticaria, food allergies and other atopic conditions, and the infections which may be treated include eczema, allergic rinitis, and the infections which may be treated include viral, bacterial, fougal and
                                                                                                                                                                                                                                                                                                                                                                                oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-OpG-RY-3' being able to induce a cell-mediated response, and those
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNVT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated
                                                                    protozoal infections such as tuberculosis, AIDS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to novel immunogenic CpG oligodeoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 4; Page 29; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-006880/01.
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ISHII K.
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VERTHELYI D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
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                                                                    leishmania and
    associated with
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RESULT 8
AAG80614
ID AAG8
AX AAG8
AX AAG8
AX AAG8
AX AAG8
AX AAG8
AX CQG
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Matches 20
The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'.NNNT-CpG-WANN-3' or 5'.RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; waccine; altergy; asthma; infection; bacterial; viral; fungal; protozoa; parasitic; tuberculosis; AIDS; autoimmune disease; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treatin solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide
                                                                                                                                                                                                                                                                                                  Novel oligonucleotides useful for the prevention and treatment o allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
                                                                                                                                                                                                                                            Claim 4; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antiasthmatic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immune deficiency; biological warfare agent; cytostatic; antiarthritic;
antimicrobial; antiallergic; protozoacide; tuberculostatic;
antiasthmatic; dermatological; phosphorothioate; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ) KLINMAN D.
) ISHII K.
) VERTHELYI D.
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20; Conservative
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Pred. No.
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RESULT 9
AAC80617
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Best Local
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                                                                                                                                                                                                       parasitic; tuberculos; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                          CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; H-cell response; antibody production; immune response induction; B-cell response; antibody production; bacterial; viral; fungal; protozoa vaccine; allergy; aschma; infection; bacterial; viral; fungal; protozoa
12-APR-1999;
                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                         12-APR-2000; 2000WO-US09839
                                                                                                                                WO200061151-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:37.
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99US-0128898
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100.0%; Pred. No. 2;
vative 0; Mismatches
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RESULT 10 AAC80618

AAC80618;

AAC80618 standard; DNA;

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14-FEB-2001

(first entry)

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                                                                                           Matches
                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                            immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                            Sequence 20
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) ISHII K.
) VERTHELYI D.
                                                                                           20;
                                                                                                                                                                                                                                            invention.
                                                GGTGCATCGATGCAGGGGGG 20
GGTGCATCGATGCAGGGGGG 20
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                                                                                              Conservative
                                                                                                                                                                                            BP; 3 A;
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                                                                                                                                                                                            3 C; 11 G; 3 T; 0 other;
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                                                                                              0,
                                                                                                                     Score 20;
Pred. No.
                                                                                                Mismatches
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                                                                                                                                            Length
                                                                                                Indels
                                                                                                <u>,</u>
                                                                                                Gaps
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CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency, biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Immunogenic
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Synthetic

WO200061151-A2

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

ISHII K. VERTHELYI D. KLINMAN D.

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent

Claim 4; Page 30; 46pp; English.

CC are able to induce either a cell-mediated (F-cell) response or a humoral (B-cell, antibody) response, with oligonuclectides of the sequence S'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those CC of the sequence 5'-RNNT-CpG-WNN-3' being able to induce a humoral CC response. It is thought that after administration, the oligonuclectide CC acts on antigen-presenting cells (e.g., macrophages and dendritic CC cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC activation of T- or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction (CC (preferably asthma), or an infection, where an immunogenic CpG coligonuclectide is administered either alone or in combination with an anticaria, food allergies and other atopic conditions, and the cc infections which may be treated include eviral, bacterial, fungal and CC which may be treated include viral, bacterial, fungal and CC protozoal infections such as tuberculosa, Allergic response in the CC results of biological warfare. An immunogenic CpG oligonucleotide, either canon combination with an anti-canon response induction may also be used in the CC results of biological warfare. An immunogenic CpG oligonucleotide, either cc alone or in combination with an anti-crome response, in the combination with an anti-crome response, is seed in the combination with an anti-crome response, and the reacting processes and combination with an anti-crome response induction may also be used in the combination with an anti-crome response in the combination with an anti-crome response, allergic conditions, and the response in combination with an anti-crome response in the combinati (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CPG-WNNN-3' or 5'-RY-CPG-RY-3'. The central CPG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the l The invention relates to novel immunogenic CpG oligodeoxynucleotides

allergies, came

WPI; 2001-006880/01.

Klinman D,

Ishii K,

Verthelyi D;

(KLIN/) KLINMAN

D.

ISHII K. VERTHELYI D.

Claim 4; Page 30; 46pp; English.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-NNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide

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RESULT 11
AAC80623
ID AAC80
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                (CGG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cycokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; altergy; asthma; infection; bacterial; viral; fungal; protozoa. parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                     antiasthmatic;
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                                                                                                                                                                                                                                                                                                                            19-OCT-2000
                                                                                                                                                                                                                                                                                                                                               WO200061151-A2
                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                             immune deficiency; biological warfare agent; cytostatic; antiarthritic;
intimicrobial; antiallergic; protozoacide; tuberculostatic;
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The present sequence represents an immunogenic CpG oligodeoxynucleotide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa. parastic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiathrobial; antiallergic; protozoacide; tuberculostatic;
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                                                                                                              (KLIN/)
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                          Klinman
                                                                                                                                                                                                  12-APR-1999;
                                                                                                                                                                                                                                                           12-APR-2000; 2000WO-US09839.
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                                                                                   VERTHELYI D.
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ISHII K.
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                    Ishii K,
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Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
Claim 4; Page 35; 46pp; English.
                                                                                                                                                                                                                                                          WPI; 2001-006880/01.
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CC acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by call vation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction (CC (preferably asthma), or an infection, where an immune presponse is conditionably asthma), or an infection, where an immune presponse is conditionably asthma), or an infection where an immune presponse is conditions anti-allergenic agent or anti-infectious agent. The allergic conditions conditions which may be treated include eczema, allergic chinitis, hayfever, confit constant infections such as tuberculosis, AIDS, leishmania and confisted protozoal infections such as tuberculosis, AIDS, leishmania and confisted protozoal infections such as tuberculosis, AIDS, leishmania and confisted protozoal infections and multiple sclerosis), a disease associated with configuration deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either colliders or in combination with an anti-cancer agent, is useful for treating conditioning activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligonucleotide is preferably administered to lymphocytes ex vivo, of the invention. The invention relates to novel immunogenic CpG oligodeoxynucleotides CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long cand comprise one of the generic sequences 5'-NNNT-CpG-NNNN-3' or CC and comprise one of the generic sequences 5'-NNNT-CpG-NNNN-3' or CC oligonucleotides optionally have phosphorothioate linkages which make CC oligonucleotide optionally have phosphorothioate linkages which make CC oligonucleotide delivery complex comprising an oligonucleotide of the CC invention and a targetting agent, and a pharmaceutical composition CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotides CC are able to induce either a cell-mediated (T-cell) response or a humoral CC (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-NNNN-3' being able to induce a cell-mediated response, and those CC response. It is thought that after administration, the oligonucleotide Sequence 20 BP; 3 A; invention. 3 C; 11 G; 3 T; 0 other;

밁 Ś Matches Query Match Local 1 GGTGCATCGATGCAGGGGGG 20 \vdash 20; Similarity GGTGCATCGATGCAGGGGGG Conservative 100.0%; 100.0%; 0, Score 20; Pred. No. 20 Mismatches 2 DB 22; 0, Length 0, Gaps 0

RESULT 13
ABK46460
ID ABK46 ABK46460 standard; DNA; ABK46460 20 ВP

05-JUN-2002

(first entry)

unmethylated CpG; oligdideoxymucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; Immunostimulatory unmethylated CpG oligodideoxynucleotide #50.

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ABK46462
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AC ABK4
AC ABK4
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DT 05-J
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Matches
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                                                                                                                                                                                                                                                                                                                                                   unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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01-SEP-2000; 2000US-229307P.
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                                                     10-AUG-2000;
01-SEP-2000;
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     (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED.
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llarity 100.0%;
Conservative 0
                                                     2000US-224011P.
2000US-229307P.
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RESULT 15
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                                                                                                          Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides
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01-SEP-2000;
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                                                         Claim 4; Page 8; 30pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                represents an oligodideoxynucleotide that can be used of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or immunising patient against respiratory syncytial virus, has of Paramyxoviridae F protein, and cytosine followed by guanine phosphate bond-oligodideoxynucleotides
                                                                                                                                                                                                                                                                                Prince G,
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2000US-229307P.
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by guanine
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The invention describes a vaccine comprising one or more epitopes of a

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Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
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Search completed: January 20, 2004, 17:31:47 Job time : 125.706 secs

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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71.0 71.0 71.0 71.0 71.0 71.0				76.0 74.0 72.0 72.0	79.0 79.0 76.0	Match
589 589 1020 1029 1128 1128 1140	4403765 4411529 4411539	3591 5496 32654 1664976	1092 1194 1308 1356	1872 622 759 1086	3358 3358 3358 1584 1794	Match Length
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US-09-064-033-3 US-09-291-046-3 US-09-291-046-3 US-09-107-532A-1250 US-08-743-637B-191 US-08-743-637B-191 US-09-107-532A-210 US-09-107-532A-210 US-08-454-196-1 US-09-064-033-1	-09-103-840A- -09-103-840A- -09-107-532A-3	US-09-252-991A-1690 US-09-462-284-1 US-09-801-191A-3 US-08-916-421B-1	US-09-252-991A-13444 US-09-252-991A-13697 US-09-252-991A-1592 US-09-252-991A-1425	1 1 1 1	US-09-248-571-2 US-09-553-736-2 US-09-252-991A-7138 US-09-252-991A-7259	ID
Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 1250, Ap Sequence 191, App Sequence 210, App Sequence 1, Appli Sequence 1, Appli	. e 2, . 341,	1690, 1, App 3, App 6 1, App	Sequence 13444, A Sequence 13697, A Sequence 1592, Ap Sequence 1425, Ap	7359, 46, Ap 1486, 13644,	Sequence 2, Appli Sequence 2, Appli Sequence 7138, Ap Sequence 7259, Ap	Description

29 14.2 71.0 1607 4 US-09-281-09-1 30 14.2 71.0 1627 1 US-08-615-170-2 31 14.2 71.0 1666 1 US-08-615-170-2 32 14.2 71.0 2728 3 US-09-188-930-213 33 14.2 71.0 2728 4 US-09-189-930-213 34 14.2 71.0 28958 1 US-08-258-2618-6 36 14.2 71.0 28958 1 US-08-258-2618-6 36 14.2 71.0 28958 1 US-08-457-342-6 37 14.2 71.0 28958 1 US-08-457-342-6 38 14.2 71.0 28958 1 US-08-457-342-6 39 14.2 71.0 28958 1 US-08-457-342-6 39 14.2 71.0 28958 1 US-08-457-342-6 40 14.2 71.0 28958 1 US-08-457-358-6 40 14.2 71.0 28958 1 US-08-764-233A-4 41 14.2 71.0 28958 1 US-08-764-233A-4 41 14.2 71.0 28958 1 US-08-764-233A-4 42 14.2 71.0 28958 1 US-08-764-233A-1 43 14.2 71.0 28958 1 US-08-731-731A-131 45 14.2 71.0 49377 1 US-08-764-233A-1	ი	ი	ი	a	ი	ი	ი	ი	ი	ი	ი		ი	ი				
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ALIGNMENTS

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SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 2
LENGTH: 3358
                                                                                                                                                                                                                             GENERAL
                                                                                                                                                                                                                                                    Sequence 2, Application US/09553736 Patent No. 6440672
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
             APPLICANT: GALLUP, Marianne
APPLICANT: DAIZONG, Li
APPLICANT: GEBREMICHAEL, Assefa
APPLICANT: GENSCH, Erin
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE INHIBITION OF MUC-5
TITLE OF INVENTION: MUCIN GENE EXPRESSION
FILE REFERENCE: UCSP-012/03US
CURRENT APPLICATION NUMBER: US/09/553,736
CURRENT FILING DATE: 2000-04-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR INHIBITION OF MUC-5 MUCIN TITLE OF INVENTION: GENE EXPRESSION FILE REFERENCE: UCSF12/02 CURRENT ON NUMBER: US/09/248,571 CURRENT FILING DATE: 1999-02-11 EARLIER APPLICATION NUMBER: 60/074,398 EARLIER FILING DATE: 1998-02-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: BASBAUM, CAROL
APPLICANT: GALLUP, MARIANNE
APPLICANT: DAIZONG, LI
                                                                                                                                                                                                            APPLICANT: BASBAUM,
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RIOR APPLICATION NUMBER:
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ORGANISM: Homo sapiens
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l Similarity 89.5%;
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Pred. No. 58;
0; Mismatches
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; ORGANISM: Homo sapiens
US-09-553-736-2
; TYPE: DNA
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-7259
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US-09-252-991A-7138
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GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
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LENGTH: 1584
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                                                            SEQ ID NO 7259
LENGTH: 1794
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Best Local Similarity 89.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER: OF SEQ ID NOS: 33142
                                                                                              PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 199-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18
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                                                                                                                                                                                                                                                APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
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PatentIn Ver. 2.1
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Pred. No. 5
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RESULT 6
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-7359
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APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 17; Conserv
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SEQ ID NO 7359
                                                                                                                                                                                                                                 SEQ ID NO 46
LENGTH: 622
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Query Match 74.0%;
Best Local Similarity 88.9%;
Matches 16; Conservative
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                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/129,030A CURRENT FILING DATE: 1998-08-04 EARLIER APPLICATION NUMBER: AU PN7856 EARLIER FILING DATE: 1996-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION TITLE OF INVENTION: GENOMIC PPO CLONES FILE REFERENCE: 57072-PCT-US
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                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 66 SOFTWARE: Patentin Ver. :
                                                                                                                                                                                                                                                                                                        EARLIER APPLICATION NUMBER: AU PO2361
EARLIER FILING DATE: 1996-09-16
EARLIER APPLICATION NUMBER: PCT/AU97/00041
EARLIER FILING DATE: 1997-01-24
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                                                                                                                                          NAME/KEY: CDS
LOCATION: (1)..(300)
                                                                                                                                                                               ORGANISM: RICE FEATURE:
                                                                                                                                                                                                                    TYPE: DNA
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                                                                                                       NAME/KEY: CDS
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   Score 14.8; DB 3;
Pred. No. 1.6e+02;
0; Mismatches 2
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Pred. No. 1
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Pred. No. 1
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                                     DB 3;
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RESULT 9
US-09-252-991A-13444/c
; Sequence 13444, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
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; Sequence 13644, Application US/09252991A
; Patent No. 6551795
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-1486
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LENGTH: 759
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APPLICANT: Marc J.
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LENGTH: 1086
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ORGANISM: Pseudomonas aeruginosa
-09-252-991A-13644
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
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CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
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PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
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Pred. No. 2.
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Pred. No. 2.5e+02;
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US-09-252-991A-13697
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PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 13697
LENGTH: 1194
TYPE: DNA
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Patent No. 6551795
GENERAL INFORMATION:
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Patent No. 6551795
GENERAL INFORMATION:
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SEQ ID NO 13444
LENGTH: 1092
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                                                                APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
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TITLE OF INVENTION: NUCLEIC ACID AND ANINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER: US 60/094,190
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELAT
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
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                   PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
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OF SEQ ID NOS:
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NVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-1592
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; LENGTH: 1356
; TYPE: DIA
; ORGANISM: Pseudomonas aeruginosa
; ORGANISM: Pseudomonas aeruginosa
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US-09-252-991A-1425/c
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                                                                                                                                                                                     APPLICANT: MARC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 1690
LENGTH: 3591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 72.0%; Score 14.4; DB 4; Best Local Similarity 93.8%; Pred. No. 2.6e+02; Matches 15; Conservative 0; Mismatches 1;
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LENGTH: 1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1690, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
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Best Local
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                                           Matches
                                                                Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                     TYPE: DNA ORGANISM: Pseudomonas aeruginosa
                                         Local Similarity
mes 15; Conserv
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15; Conserv
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GGTGCATCGATGCAGG 16
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                                           Conservative
                                                    72.0%;
93.8%;
                                         0;
                                                           Score 14.4; DB 4;
Pred. No. 2.9e+02;
                                           Mismatches
                                                                                  DB 4;
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; LENGTH: 5496
; TYPE: DNA
; ORGANISM: Fungus
US-09-462-284-1
Search completed: January 20, 2004, 17:17:04 Job time : 39.9412 secs
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US-09-462-284-1/c
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CURRENT FILING DATE: 2000-01-03
NUMBER OF SEQ ID NOS: 9
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 1
                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 8
SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3
LENGTH: 32654
TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: YE, Jane et al
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                                                                                                                                                      Matches
                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, TITLE OF INVENTION: THEREOF FILE REFERENCE: CLOOLIS9 CURRENT APPLICATION NUMBER: US/09/801,191A CURRENT FILING DATE: 2001-03-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Doumas, Agnes
APPLICANT: Affolter, Micheal
APPLICANT: Affolter, Micheal
APPLICANT: Van Den Broek, Peter
TITLE OF INVENTION: CLONING OF THE
TITLE OF INVENTION: PROLYL-DIPEPTIDYL-PEPTIDASE FROM
TITLE OF INVENTION: ASPERGILLUS ORYZAE
FILE REFERENCE: 8265-298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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Monod, Michel
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                                                                                                                                                      72.0%; Score 14.4; DB 4; 93.8%; Pred. No. 3.4e+02; tive 0; Mismatches 1;
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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                                               18.4
18.4
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1: /cgn2 6/ptodata/1/pubpna/US07 PUBCOMB.seq:*

2: /cgn2 6/ptodata/1/pubpna/PCT NEW PUB.seq:*

3: /cgn2 6/ptodata/1/pubpna/US06 NEW PUB.seq:*

4: /cgn2 6/ptodata/1/pubpna/US07 NEW PUB.seq:*

5: /cgn2 6/ptodata/1/pubpna/US07 NEW PUB.seq:*

6: /cgn2 6/ptodata/1/pubpna/US08 NEW PUB.seq:*

7: /cgn2 6/ptodata/1/pubpna/US08 NEW PUB.seq:*

8: /cgn2 6/ptodata/1/pubpna/US08 PUBCOMB.seq:*

9: /cgn2 6/ptodata/1/pubpna/US08 PUBCOMB.seq:*

9: /cgn2 6/ptodata/1/pubpna/US08 PUBCOMB.seq:*
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Copyright (c) 1993 - 2004 Compugen Ltd.
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/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
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/cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
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US-10-194-035-38

US-10-194-035-72

US-10-104-035-72

US-10-068-160-1

US-10-068-160-1

US-10-194-035-53

US-10-194-035-73

US-10-194-035-82

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US-10-194-035-34
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Sequence 32, Appl
Sequence 37, Appl
Sequence 38, Appl
Sequence 43, Appl
Sequence 72, Appl
Sequence 1, Appl
Sequence 54, Appl
Sequence 54, Appl
Sequence 54, Appl
Sequence 67, Appl
Sequence 61, Appl
Sequence 610, Appl
Sequence 101, Appl
Sequence 101, Appl
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84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	4.	84.0	85.0	87.0	87.0	7.	90.0		92.0		92.0		'n	'n	92.0	'n	92.0	υ.	٥	'n	92.0
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-890-0	-10-068-16	-10-068-160-	-10-068-16	-194-035-	US-10-194-035-96	-10-194-035-	-10-194-03	-10-194-035-	-10-194-035-	0-194-035-	US-10-194-035-27	-035-		-10-194-035-	0-068-16	-10-068-160-1	-10-068-160-	-068-160-6	-10-068-160-	-10-068-160-	-10-068-160-	US-10-068-160-35	-10-068-	-10-068-160-	-068-160-	-10-068-16	-194-035-	-10-194-03	US-10-194-035-104
equence 40,	e 31	e 26	equence 2,	e 10	e 96	94	e 90	42	41	e 39	27	88	83	e 22	38	e 12,	e 65,	e 64	e 53	e 52	e 37,	e 35,	30,	•	H	Sequence 7, Appli	equence 10	e 106	•
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ALIGNMENTS

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Db 1 GGTGCATGCAGGGGGG 20	Qy 1 GGTGCATCGATGCAGGGGG 20	Best Local Similarity 100.0%; Pred. No. 2.1; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	100.0%;	US-10-194-035-32	; FEATURE:	; ORGANISM: Artificial Sequence	: TYPE: DNA	; SEQ ID NO 32	; SOFTWARE: PatentIn Ver. 2.1	; NUMBER OF SEQ ID NOS: 119	; PRIOR FILING DATE: 2000-01-14	PRIOR APPLICATION NUMBER: US 60/176,115	; PRIOR FILING DATE: 2001-07-19	; PRIOR APPLICATION NUMBER: PCT/US01/01122	; CURRENT FILING DATE: 2002-07-12	; CURRENT APPLICATION NUMBER: US/10/194,035	; FILE REFERENCE: 4239-63317	₹	• •	ARELICANI SULMIAN, DELILIO	•••	; APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE	; GENERAL INFORMATION:	; Sequence 32, Application US/10194035 ; Publication No. US20030144229A1	US-10-194-035-32	

RESULT 2

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CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SQUTWARE: PATENTIN Ver. 2.1
SQUTWARE: PATENTIN Ver. 2.1
TYPE: DNA
TYPE: DNA
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                                                                                                        Query Match
Best Local :
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LENGTH: 20
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE
FILE REFERENCE: 4239-63317
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
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                                                                                                                                                             FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
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                                                                                       Local Similarity 100.
les 20; Conservative
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10. US20030144229A1
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Pred. No. 2.1;
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Pred. No. 2.1;
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AND HUMAN SERVICES
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-43
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND IT
FILE REFERENCE: 4239-6311
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTMARE: Patentin Ver. 2.1
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Matches
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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SEQ ID NO 38
LENGTH: 20
TYPE: DNA
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Publication No. US20030144229A1
                                                                                                                                                                                                                                                                                       SEQ ID NO 43
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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APPLICANT:
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                           OTHER INFORMATION: Oligonucleotide US-10-068-160-1
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 72
                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
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Publication No. US20030144229A1
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Best Local Similarity
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-61999
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REP APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
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                                                                                                                                                                             FEATURE:
                                                                                                                                                                                          LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
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Pred. No. 2.1;
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LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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SEQ ID NO 53
SEBUGTH: 19
TYPE: DNA
ORGANISM: Artificial Sequence
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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                                                                 Conservative
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Pred. No. 2.1;
                                                                                                                                                        of Artificial Sequence: Synthetic
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Publication No. US20030144229A1
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Best Local 9
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LENGTH: 20
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194;035
CURRENT FILING DATE: 2002-07-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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EQ ID NO 73
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NUMBER OF SEQ ID NOS: 119
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ORGANISM: Artificial Sequence
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100.0%; Pred. No.
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AND HUMAN SERVICES
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Best Local S
Matches 19
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LENGTH: 20
TYPE: DNA
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SEQ ID NO 82
LENGTH: 20
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Best Local :
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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APPLICANT: VERTHELYI, Daniela
APPLICANT: VERTHELYI, Daniela
TITLE OP INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REPERENCE: 4239-63317
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                                                                                                                                                       OTHER INFORMATION: Description of Artificial Sequence: Synthetic
                                                                                                                                                                                                                  TYPE: DNA
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No. US20030144229A1
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; TYPE: DNA; ORGANISM: Artificial Sequence; FEATURE: ; FEATURE: ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-100
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US-10-194-035-101
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US-10-194-035-101
                                                                                   Query Match
Best Local S
Matches 19
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 101
LENGTH: 20
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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APPLICANT: KLINMAN, Dennis
                                                                                                                                                                                                                 TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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PLICANT: VERTHELYI, Daniela
TLE OF INVENTION: OLIGODBOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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Search completed: January 20, 2004, 17:24:35 Job time : 133.353 secs

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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model Run on: January 20, 2004, 17:31:58; Search time 707.059 Seconds (without alignments) 1157.177 Million cell updates/sec

Scoring table: Perfect score: Sequence: US-10-068-160-54 20 1 ggtgcatcgatgcac ggtgcatcgatgcagggggg 20

Searched: OLIGO_NUC Gapop 60.0 , Gapext 60.0 2888711 seqs, 20454813386 residues

Word size :

Total number of hits satisfying chosen parameters: 3159832

Database : Post-processing: Listing first GenEmbl: * 45

Minimum DB seq length: 0
Maximum DB seq length: 500

summaries

gb_pat: gb_pl:* gb_pr:* gb_pr:* gb_ro:* gb_sy:* gb_sy:* gb_un:* gb_un:* gb_un:* em fun: *
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SUMMARIES

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ALIGNMENTS

	JOURNAL	TITLE	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	Locus	AX194432	RESULT 1
Secretary of the Department of Health and Human Services (US)	Patent: WO 0151500-A 32 19-JUL-2001;	Oligodeoxynucleotide and its use to induce an immune response	Klinman, D., Ishii, K. and Verthelyi, D.	1	artificial sequences.	synthetic construct	synthetic construct		AX194432.1 GI:15385088	AX194432	Sequence 32 from Patent WO0151500.	AX194432 20 bp DNA linear PAT 28-AUG-2001		

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RESULT 2
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AX194472
 AX352209
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Oligodeoxymuclectide and its use to induce an immune response
Patent: WO 0151500-A 72 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 538 13 DEC-2001;
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/db_xref="taxon:32630"
/note="Synthetic HDR"
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Vaccine against RSV
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US).
Mond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 55 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonuclectide"
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/mol type="genomic DNA"
/db_xref="reaxon:32630"
/note="Synthetic oligonucleotide"
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Vaccine against RSV
Patent: WO 0211761-A 56 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Vaccine against RSV
Patent: WO 0211761-A 61 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE
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/note="Synthetic oligonucleotide"
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                                                                                                                     and Klinman, D.M.
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WO0211761.
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WO0211761.
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BASE COUNT
ORIGIN
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AX465422
LOCUS
DEFINITION
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KEYWORDS
SOURCE
ORGANISM
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AUTHORS
TITLE
JOURNAL
Search completed: January 20, 2004, 20:43:21 Job time: 707.059 secs
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ORIGIN
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                                                                    1 GGTGCATCGATGCAGGGGGG 20
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1 GGTGCATCGATGCAGGGGGG 20
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Vaccine against RSV
Patent: WO 0211761-A 90 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 bp
Sequence 90 from Patent WO0211761.
AX465422
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                                                                                                                                                                                                                            /organism="synthetic construct"
/mol type="genomic DNA"
/mol type="genomic DNA"
/db_xref="reaxon:32630"
/note="Synthetic oligonucleotide"
/note="Synthetic oligonucleotide"
3 c 11 g 3 t
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/note="Synthetic oligonucleotide"
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N Geneseq 19Jun03:*

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5: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*
6: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*
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9: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1988.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
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Pred. No. is the number of results predicted by chance score greater than or equal to the score of the result and is derived by analysis of the total score distribut to have being pr

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20	20	20	20	20	20	20	20	Score	
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22 AA	H								
AAC80614	AAC80612	AAS09622	AAS09593	AAS09588	AAS09587	AAS09584	AAS09582		SOMMERCES
Immunogenic CpG ol	Immunogenic CpG ol	Immunoreactive CpG	Description	E					

ALIGNMENTS

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RESULT 1
AAS09582
                                                                                                                                              AAS09582 standard; DNA; 20 BP.
                                              26-SEP-2001 (first entry)
Immunoreactive CpG sequence-containing oligonucleotide #32.
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFM-gamma; humoral; antibody production; interleukin-6 production; therapoutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid archiritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.

Synthetic.

12-JAN-2001; 2001WO-US01122.

19-JUL-2001.

WO200151500-A1.

14-JAN-2000; 2000US-0176115.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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ce mediated immune response, involving non-B cell activation, interferon
ce gamma (IFN-gamma) production or a humoral immune response involving B
cell activation, antibody and interleukin-6 production in a host, for
treating, preventing or ameliorating an allergic reaction, e.g. asthma,
ce cancer, e.g. solid tumour cancer, a disease associated with the immune
ce system e.g. autoimmune disorder or an immune system deficiency, infection
ce or a symptom resulting from exposure to bio-warfare agent in a human. The
ce induction of immune response improves the efficacy of a vaccine and is
ce used in antisense therapy. The ODN are useful for treating, preventing or
ce oryza, hay fever, bronchial asthma, urticaria (hives), food allergies
ce and other atopic conditions, for improving the efficacy of vaccines
ce against hepstitis A, B and C, human immunodeficiency virus (HIV) and
ce arythematosus and autoimmune diseases surhematoid arthritis and
ce arythematosus and autoimmune system deficiencies, e.g. lupus
cuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and
conthirse resulting from exposure of bio-warfare agent, including Ebola,
interval and interpretations including Francisella, schistosomiasis,
conthirse resulting from exposure of bio-warfare agent, including Ebola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
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                                                                                                                                                      CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; heparitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
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                  19-JUL-2001
                                                          WO200151500-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS09584 standard; DNA; 20 BP
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                                                                                                                                                                                                                                                                                                                                             Immunoreactive CpG
                                                                                                                                                                                                                                                                                                                                                                                    26-SEP-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20 BP; 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                represent oligodeoxynucleotides (ODN) of at least
                                                                                                                                                                                                                                                                                                                                        sequence-containing oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             multiple CpG sequences, where one of the Cp from another of the multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; 11 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>.</u>
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Pred. No. 0.075;
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CC nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences.

CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon CC gamma (IFN-gamma) production or a humoral immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. schima, cc symptom resulting from exposure to bio-warfare agent in a human. The cused in antisense therapy. The ODN are useful for treating, preventing or ameliorating steem e.g. altergic reactions, including eczema, allergic rhinits or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for immunor the efficacy of vaccines and coryza, hay fever, bronchial asthma, urticaria (hives), food allergies capting for treating immune system deficiency virus (HIV) and cerythematosus and autoimmune diseases such as rheumatoid arthritis and tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and contract and Listeria.

CC Anthrax and Listeria.
                                                                                                                                                                                                                                                                                                                                                 AAS09587
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Best Local :
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                                                                                                         CpG sequence; immune response; non-B cell activation; interferon gamma; line immune response; non-B cell activation; interfeukin-6 production; ITRY-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryaa; hay fever; urticaria; hives; food allergy; atopic condition; coryaa; hay fever; urticaria; hives; food allergy; atopic condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 5; Page 32; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
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                                                     hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
lupus erythematosus; rheumatoid arthritis; multiple sclerosis;
schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                      26-SEP-2001
                                                                                                                                                                                                                                                                                                         AAS09587;
                                                                                                                                                                                                                                                                                                                                             AAS09587 standard; DNA; 20 BP
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                                                                                                                                                                                                                                  Immunoreactive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                   Ebola; Anthrax;
                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                            sequence-containing oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
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                                       Listeria; ss.
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Pred. No.
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WO200151500-A1.

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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to blo-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immundeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid arthritis and multiple sclerosis, infections including transiencies.
CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoinmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhintis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligodeoxynucleotides for inducing an immune response to treat ar prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CPG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-JAN-2000; 2000US-0176115
                                                                                                                                            Immunoreactive CpG sequence-containing oligonucleotide #38.
                                                                                                                                                                                    26-SEP-2001
                                                                                                                                                                                                                                                                  AAS09588 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anthrax and Listeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 5; Page 33; 48pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                                                                                       1 GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP; 3 A;
                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 20; DB 22; 100.0%; Pred. No. 0.075;
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C;
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RESULT 5

AAS09593 standard;

DNA;

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GGTGCATCGATGCAGGGGG

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0

26-SEP-2001

(first entry)

CpG sequence; immune response; non-B cell activation; interferon gamma;

Immunoreactive CpG sequence-containing oligonucleotide #43

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                                                    Matches
                                                                         Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oligodeoxynucleotides for inducing an immune response to treat a prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at nucleotides comprising multiple CpG sequences, where one of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                      Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
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                                                                                                                                                                                                        Anthrax and Listeria.
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     1 GGTGCATCGATGCAGGGGG
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                                                                               Similarity
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                                                    Conservative
                                                                         100.0%; Score 20; DB 22
100.0%; Pred. No. 0.075;
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                                                       Mismatches
                                                                                                 DB 22;
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RESULT 6
AAS09622
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                                                                                                                                                                                                                                                                                                                                                           CC nucleotides comprising multiple CpG sequences, where one of the CpG cc sequences is different from another of the multiple CpG sequences. Where one of the CpG cc mediated immune response, involving an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon cc gamma (IFN-gamma) production or a humoral immune response involving B cc cell activation, antibody and interleukin-6 production in a host, for creating, preventing or ameliorating an allergic reaction, e.g. asthma, cc cancer, e.g. solid tumour cancer, a disease associated with the immune cancer, e.g. suchimune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The cinduction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or cc ameliorating allergic reactions, including eczema, allergic rhinitis or cc and other atopic conditions, for improving the efficacy of vaccines are capainst hepatitis A, B and C, human immunodeficiency virus (HIV) and capainst hepatitis A, B and C, human immunodeficiency virus (HIV) and capainst hepatitis and autoimmune disease such as rheumatoid arthritis and cultiple sclerosis, infections including Francisella, schistosomiasis, cc tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and cc Anthrax and Listeria.
                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oligodeoxynucleotides for inducing an immune response to treat an prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
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                   AAS09622;
                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;
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                                                         AAS09622 standard; DNA;
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                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                     GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                                                                                                                                100.0%;
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                                                           ВP
                                                                                                                                                                                                                                             0;
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Pred. No. 0.075;
                                                                                                                                                                 20
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CC AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon CC gamma (IFN-gamma) production or a humoral immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for CC cancer, e.g. solid tumour cancer, a disease associated with the immune CC system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The CC used in antisense therapy. The ODN are useful for treating, preventing or amplicrating allergic reactions, including eczema, allergic rhinitis or CC carpta, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and carpines the patitis and autoimmune diseases such as rheumatoid arthritis and contributed records, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and Symptoms resulting from exposure of bio-warfare agent, including Ebola,
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                                                                              Matches
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; heparitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      prevent an allergic reaction, car symptoms resulting from exposure
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                                                                                                                                                        Sequence 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-SEP-2001 (first entry)
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                                                                              20;
                                                                                                                                                                                                 and
                                                                                                Similarity
                                       GGTGCATCGATGCAGGGGGG 20
  GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                          B₽;
                                                                                                                                                                                                 Listeria.
                                                                                                                                                          3 A; 3 C; 11 G; 3 T; 0 other;
                                                                                                  100.0%;
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                                                                                                    NO;
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                                                                                                                     DB 22;
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                                                                                                                   Length 20;
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CC are able to induce either a cell-mediated (T-cell) response or a humoral CC (B-cell, antibody) response, with oligonucleotides of the sequence CC (S-cy-CpG-RY-3' being able to induce a cell-mediated response, and those CC of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral CC response. It is thought that after administration, the oligonucleotide CC ecls), which then release Cytokines, leading to activation of natural CC cells), which then release Cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by CC activation of T- or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction CC (preferably asthma), or an infection, where an immunogenic CpG coligonucleotide is administered either alone or in combination with an CC oligonucleotide is administered either alone or in combination with an CC unticaria, food allergies and other atopic conditions, and the CC urticaria, food allergies and other atopic conditions, and the CC infections which may be treated include viral, bacterial, fungal and CC infections which may be treated include viral, bacterial, fungal and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CPG-WNNN-3' or 5'-RY-CPG-RY-3'. The central CPG motif is unmethylated, and the oligonucleotides optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa parasitic; tuberculosis; AIDS; autoimmune disease; hupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 4; Page 29; 46pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Klinman D,
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                     schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus,
                                                                      protozoal infections such as tuberculosis, AIDS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (/IHSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         invention relates to novel immunogenic CpG oligodeoxynucleotides C80581-C80723). The oligonucleotide are at least 10 bases long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KILINMAN D.
ISHII K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              СрG
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          The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generics sequences 5'-NNNT-CpG-WNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an other more resistant to degradation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treatin solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host.
                                                                                                                                                               Novel oligonucleotides useful for the prevention and treatment allergies, cancer, and autoimmune disorders and for amelioratin symptoms resulting from exposure to a bio-warfare agent -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence of the invention.
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                                                                                                                                   Claim
                                                                                                                                                                                                                                   WPI; 2001-006880/01
                                                                                                                                                                                                                                                                   Klinman D,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:34.
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                                                                                                                                                                                                                                                                                                                                      (KLIN/)
                                                                                                                                   4; Page
                                                                                                                                                                                                                                                                                                   ) KLINMAN D.
) ISHII K.
) VERTHELYI D.
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                                                                                                                                   29;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dermatological; phosphorothioate; ss.
                                                                                                                                 46pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         represents an immunogenic CpG oligodeoxynucleotide
                                                                                                                                                                                                                                                                     Verthelyi D;
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                                                                                                                               English.
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Pred. No.
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RESULT 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humonal response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG
                                                                                                                                                                                                                                                                                                                                                                                                   CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humonal response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antianterobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
12-APR-1999;
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                                                                            12-APR-2000; 2000WO-US09839
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llarity 100.0%;
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Pred. No. 0.075;
Mismatches
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RESULT 10
AAC80618
ID AAC80

AAC80618 standard; DNA; 20

₽P

14-FEB-2001

(first entry)

AAC80618;

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Matches Query Match Best Local :

20;

Conservative

0

Mismatches

0.075; DB 22; 0;

Length 20;

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Gaps

0

GGTGCATCGATGCAGGGGGG 20

20

Similarity

100.0%; Score 20; 100.0%; Pred. No.

Sequence 20 BP; 3 A;

ω

C; 11 G; 3 T; 0 other;

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acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic roinitis, hayfever, urticaria, food allergies and other atopic conditions, and the infections which may be treated include viral, bacterial, fungal and infections which may be treated include viral, bacterial, fungal and
                                            protozoal infections such as tuberculosis, AIDS, leishmania and schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus grythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an analysis of the composition and a tracerting agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KLIN/)
(ISHI/)
(VERT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 4; Page 29; 46pp; English.
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) ISHII K.
) VERTHELYI D.
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Immunogenic
CpG oligodeoxynucleotide, SEQ ID NO:38.
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parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss. CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa protozoal;

WO200061151-A2

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

(KLIN/) KLINMAN D. ISHII K. VERTHELYI D.

Klinman D, Ishii K, Verthelyi

WPI; 2001-006880/01.

symptoms resulting from exposure to a bio-warfare agent Novel oligonucleotides allergies, cancer, and useful for the prevention and treatment of autoimmune disorders and for ameliorating

Claim 4; Page 30; 46pp; English

of the sequence 5'-NNN'-Cyg-NNN'-1's being able to induce a humoral CC response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells (e.g., macrophages and dendritic CC cells), which then release cytokines, leading to activation of natural CC killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG coligonucleotide is administered either alone or in combination with an CC which may be treated include eczema, allergic rhinitis, hayfever, CC unticaria, food allergies and other atopic conditions, and the CC infections which may be treated include viral, bacterial, fougal and protozoal infections such as tuberculosis, AIDS, leishmania and CC grotozoal infections such as tuberculosis, AIDS, leishmania and CC grotozoal infections and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an combination with an anti-cancer agent, is useful for treating colid tumour cancer. The induction of an immune response is used in combination with an anti-cancer agent, is useful for treating colid tumour cancer. The induction of an immune response is used in combination and to improve the efficacy of a vaccine. The coligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CPG-RY-3' being able to induce a cell-mediated response, and those oligonucleotides optionally have phosphorothioate linkages which make The invention relates to novel immunogenic CgG oligodeoxynuclectides (AAC80581-C80723). The oligonuclectide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating

WPI; 2001-006880/01.

Klinman D,

Ishii K,

Verthelyi

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12-APR-1999;

99US-0128898

(KLIN/)

) KLINMAN D.) ISHII K.) VERTHELYI D.

symptoms resulting from exposure to a bio-warfare

agent

Claim

4; Page 30; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC8D581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-MNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotide optionally have phosphorothioate linkages which make cligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-MNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide

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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 3 A;
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                                                                                                                                                                                                                                                                                                                                      19-OCT-2000
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antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:43
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RESULT 12
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Best Local &
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                                                                                                                                                                                                                                                                                                                                        CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosts solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antianterobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence of the invention.
                                                    (KLIN/)
(ISHI/)
(VERT/)
                                                                                                                                                                            12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                                                                                                    Synthetic
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                Klinman
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                                                                                                                                                                                                                                                            WO200061151-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:72.
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                'n
                                                        VERTHELYI D.
                                                                           KLINMAN D.
ISHII K.
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                Ishii K,
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100.0%; Pred. No. 0.075;
tive 0; Mismatches
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                Verthelyi D;
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RESULT 13 ABK46460

ABK46460 standard; DNA;

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ABK46460;

05-JUN-2002

(first entry)

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GGTGCATCGATGCAGGGGGG GGTGCATCGATGCAGGGGGG 20 Conservative

20

Matches Query Match Best Local

Similarity

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;

100. 100.0%;

.0%;

Score 20; Pred. No.

0.075; DB 22; 0;

Length Indels

20

0

Gaps

0

0;

Mismatches

Immunostimulatory unmethylated

CpG oligodideoxynucleotide #50.

unmethylated CpG; oligdideoxymucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; viral bronchiolitis; pneumonia;

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The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-NNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the coligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an coligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides or a humoral care able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-NNNN-3' being able to induce a chl-mediated response, and those of the sequence 5'-NNNT-CpG-NNNN-3' being able to induce a humoral to response. It is thought that after administration, the oligonucleotide
                                                                                                              protozoal infections such as tuberculosis, AIDS, leishmania and schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus crythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, urticaria, food allergies and other atopic conditions, and the infections which may be treated include viral, bacterial, fungal and professal infections are the professal and the stream of the conditions and the infections which may be treated include viral, bacterial, fungal and professal infections are the professal and the conditions are the professal and the conditions are the professal and professal infections which may be treated include viral, bacterial, fungal and professal infections are the professal and the conditions are the professal and professal infections which may be treated include viral, bacterial, fungal and professal infections which may be treated include viral, bacterial, fungal and professal infections which may be treated include viral and the professal infections which may be treated include viral and the professal infections which may be treated include viral and the professal infections which may be treated include viral and the professal infections which may be treated include viral and the professal infections which may be treated include viral and the professal infections which may be treated include viral and the professal infection
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                                                                                       invention.
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RESULT 14
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Best Local
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                                                                                                                                                                           unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                          05-JUN-2002
                                                                                                                                                                                                                                                                                                                                ABK46462 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          creation
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01-SEP-2000; 2000US-229307P.
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                         10-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                            Immunostimulatory unmethylated CpG oligodideoxynucleotide #52.
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(JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
                                                                 09-AUG-2001; 2001WO-US41633.
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                         2000US-224011P.
2000US-229307P.
                                                                                                                                                                                                                                                                          (first entry)
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by guanine
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RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            guanine linked by phosphate bond) -oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This
                                                  Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention describes a vaccine comprising one or more epitopes of a paramyxoviridae F protein, and one or more CPG (cytosine followed by guantine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The
                                                                                                                                         Mond
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                                                                                                                                                                                                10-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                           09-AUG-2001; 2001WO-US41633
                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                         bronchopulmonary dysplasia;
                                                                                                                                                                                                                                                                                                                                                                                    unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV;
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                         Claim 4; Page 8; 30pp; English.
                                                                                                                                                                   (JACK-)
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                                                                                                                                                                                                                                                                                                                                                                         viral bronchiolitis;
                                                                                                            WPI; 2002-227118/28
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                                                                                                                                       Prince G,
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                                                                                                                                                                                              2000US-224011P.
2000US-229307P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                  F protein;
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                                                                                                                                                                                                                                                                                                                                                                      pneumonia; infectious pulmonary
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The invention describes a vaccine comprising one or more epitopes of a

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Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasis, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
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និនិនិនិនិនិនិនិនិ Ś Query Match 100.0%; Score 20; DB 24; Length 20 Best Local Similarity 100.0%; Pred. No. 0.075; Matches 20; Conservative 0; Mismatches 0; Indels Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other; Length 20; 0; Gaps 0;

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Search completed: January 20, 2004, 18:51:34 Job time : 123.235 secs

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Title:
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Maximum DB seq length: 500
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/cgn2 6/ptodata/2/ina/5B_COMB.seq:*
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/cgn2 6/ptodata/2/ina/6B_COMB.seq:*
/cgn2 6/ptodata/2/ina/6B_COMB.seq:*
/cgn2 6/ptodata/2/ina/backfiles1.seq:*
     GenCore version 5.1.6 (c) 1993 - 2004 Compugen
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                 US-09-004-730A-40
US-08-981-799A-40
US-08-464-257-7
US-09-062-375-7
US-09-203-796A-7
US-09-237-712-67
US-09-237-712-67
US-09-187-108-3
5466585-4
US-09-187-108-3
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US-08-433-124A-138

US-08-976-413A-138

PCT-US96-06059-138

US-08-433-126A-59

US-08-433-124A-59

US-08-976-413A-59

PCT-US96-06059-59
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US-09-005-069-91
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                                                                Sequence 137, App
Sequence 137, App
Sequence 138, App
Sequence 59, Appl
Sequence 70, Appl
Sequence 40, Appl
Sequence 40, Appl
Sequence 7, Appli
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Sequence 67, Appli
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Sequence
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	US-08-587-333-14	US-08-089-862-7	US-09-203-796A-7	US-09-062-375-7	US-08-464-257-7	US-09-411-687A-13	US-09-411-687A-13	US-08-558-935-5	US-09-123-728-1	US-08-700-757-70	US-07-832-905B-70	US-08-602-725-13	US-09-371-772B-4239	US-09-615-192A-179	US-08-981-799A-40	US-09-004-730A-40	US-09-171-156A-40	US-09-005-069-91
	Sequence 14, Appl	Sequence 7, Appli	Sequence 7, Appli	Sequence 7, Appli	Sequence 7, Appli	Sequence 13, Appl	Sequence 13, Appl	Sequence 5, Appli	Sequence 1, Appli	Sequence 70, Appl	Sequence 70, Appl	Sequence 13, Appl	Sequence 4239, Ap	Sequence 179, App	-	•	Sequence 40, Appl	Sequence 91, Appl

ALIGNMENTS

Sequence 137, Application Patent No. 5688935
GENERAL INFORMATION: COMPUTER: IBM DECOMPATIBLE
COMPUTER: IBM DECOMPATIBLE
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORDERFIECT 6.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/433,120
FILING DATE: 03 MAY 1995
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 11-COTOBER-1992
ATTORNEY/AGENT INFORMATION:
NAME: BATLY J. SWANBON
DECOMPATION: SWANBON
NAME: BATLY J. SWANBON TELEFAX: (303) 793-34: INFORMATION FOR SEQ ID NO: NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
TELEFAX: (303) 793-3433 APPLICANT:
APPLICANT:
APPLICANT: ZIP: 80111 COMPUTER READABLE FORM: MEDIUM TYPE: Diskett SEQUENCE CHARACTERISTICS: LENGTH: 31 base pairs LENGTH: 31 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear CORRESPONDENCE ADDRESS: TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: TARGET NUMBER OF SEQUENCES: STATE: STREET: COUNTRY: CITY: ADDRESSEE: Englewood : Colorado E: Swanson & Bratschun, L.L.C. 8400 E. Prentice Avenue, Suite GOLD, LARRY USA STEPHENS, ANDREW SCHNEIDER, DAN Diskette, US/08/433,126A US/08433126A 33,215 ER: NEX31.2 3 1/2 diskette, 200 1.44

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; OTHER INFORMATION:
; FEATURE:
; OTHER INFORMATION:
US-08-433-126A-137
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APPLICANT: STEPHE
                                                                                                                                                                                                                               TELEFAX: (303) 793-3433
INFORMATION FOR SEQ ID NO: 137:
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APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
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                                                                                         FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 31 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX31.2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 11-JUNE-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 03 MAN CLASSIFICATION: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLE OF INVENTION:
                                                                                                                       OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 07/964,6
FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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8400 E. Prentice Avenue, Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCHNEIDER, I
GOLD, LARRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
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                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Diskette, 3 1/2 diskette, 1.44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ПИВЕR: US/08/433,124A
03 MAY 1995
                                                                                                                                                                    single
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              65.0%; Score 13;
100.0%; Pred. No.
tive 0; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEIC ACID LIGANDS
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                                                                                                                         All C's are 2'-F cytosine
                                                                                           All U's are 2'-F uracil
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Pred. No.
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                               DB 1; Length 31; .55;
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                                                                                                                                        US-08-976-413A-137
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                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                             PILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
APPLICATION UNDER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION UNDER: 07/964,624
FILING DATE: 21-OCTOBER-1992
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                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: BAIRY J. SWAIISON
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NE:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/433,124
FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                  FEATURE: OTHER INFORMATION:
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APPLICANT: SPECK, ULRICH
                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                     LENGTH: 31 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/976,413A FILING DATE: 21-NOVEMBER-1997
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OPERATING SYSTEM:
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STATE: Colorado
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                                                                                                                                                    OTHER INFORMATION:
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                                   6 ATCGATGCAGGGG 18
                                                                                   Similarity
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                                                                    Conservative
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10 E. Prentice Avenue, Suite
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                                                                 65.0%; Score 13; DB 3; 100.0%; Pred. No. 55; tive 0; Mismatches
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RESULT 4 PCT-US96-06059-137/c

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                              Sequence 138, Application US/08433126A Patent No. 5688935
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                             Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
PRIOR APPLICATION UNMBER: 03
APPLICATION NUMBER: 03-MAY-11
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                 FEATURE: OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Diskett
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE
                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                             STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX31.2
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FILING DATE: 10-JUNE-1991
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                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 21-0C7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                            ENGTH:
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                                                                                                                                                   ATCGATGCAGGGG 18
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                                                                                                                                                                                                                                                                                                                                                             31 base pairs
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STEPHENS, ANDREW
                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                        (303)
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11-JUNE-1990
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; OTHER INFORMATION:
US-08-433-126A-138
                                                                                                                                                                              Sequence 138, Application US/08433124A Patent No. 5750342
                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
                                                                                                                                                                   GENERAL INFORMATION:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
PILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
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INFORMATION FOR SEQ ID NO:
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CORRESPONDENCE ADDRESS:

ANDRESSEE: Swanson & Bratschun, L.L.C.

ANDRESSEE: Swanson & Bratschun, L.L.C.
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08,
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PRIOR APPLICATION DATA:
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                                                CORRESPONDENCE ADDRESS:
                                                             TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE
TITLE OF INVENTION: TARGET
NUMBER OF SEQUENCES: 241
                                                                                                                   APPLICANT:
                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 38 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Barry J. Swan REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                             ADDRESSEE:
                                                                                                                                                                                                                                                                                     13 ATCGATGCAGGGG 1
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               E: Swanson & Bratschun, L.L.C. 8400 E. Prentice Avenue, Suite
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GOLD, LARRY
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                                                                                                               STEPHENS, ANDREW
SCHNEIDER, DAN
GOLD, LARRY
                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IBM pc compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Diskette, 3 1/2 diskette, 1.44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           793-3433
                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        All C's are 2'-F cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                       All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07/964,624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07/714,131
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                                                                                                                                                                                                                                                                                                                                                                     Score 13;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                       DB 1;
                 200
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                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                     Length 38;
                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                     Gaps
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett

Diskette, 3 1/2 diskette,

1.44

Colorado

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                                                                                                                                                                                                                                                                                                                                                      RESULT 7
US-08-976-413A-138/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                     Sequence 138, Application US/08976413A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                         Patent No.
                                                                                                                                                                                                                        GENERAL INFORMATION:
.APPLICANT: STEPHENS, ANDREW
APPLICANT: SOLD, LARRY
APPLICANT: SPECK, ULRICH
TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET
NUMBER OF SEQUENCES: 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 21-OCTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 10-JUNE-1991 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: NEX31.2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION: NAME: Barry J. Swanson
                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                        COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 03 MA CLASSIFICATION: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM pc
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 07/536,428 FILING DATE: 11-JUNE-1990
                                                                                                                                                                           STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER:
                                                                              MEDIUM TYPE:
                                                                                                                             COUNTRY:
                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
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                                                                                                                                                           Englewood
                                                                                                                                                                                                                                                                                                                           61271:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acid
                APPLICATION DATA:
                                                                                                                                             Colorado
                                                                                                                                                                             8400 E.
                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (303)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IBM pc compatible
SYSTEM: MS-DOS
                                                                                                                                                                           Swanson & Bratschun, L.L.C.
00 E. Prentice Avenue, Suite 200
                                                                              Diskette, 3 1/2 diskette, 1.44 MG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03 MAY 1995
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100.0%; Pr/
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US/08/976,413A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 13;
Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1; Length 38;
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RESULT 8
PCT-US96-06059-138/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
         CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/433,124
FILING DATE: 03-MAY-1995
PRIOR APPLICATION DATA:
                                                                                                                      SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 21-OCTOBER-: ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                     COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                         STREET: 8400 K.
CITY: Englewood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 38 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NE
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FILING DATE: 11-JUNE-1990
                                                                                         FILING DATE:
                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                 COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                              NDDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13 ATCGATGCAGGG
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                                                                                                                                                                                                                    80111
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                                                                                                                                                                                                                                                 Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                      Application PC/TUS9606059
                                                                                                                                                                                                                                                                                 8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                       STEPHENS, ANDREW SCHNEIDER, DAN
                                                                                                                                                                                                                                                                                                                                                                          GOLD, LARRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                              Swanson & Bratschun, L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-NOVEMBER-1997
                                                                                                                                                                                  Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-OCTOBER-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         All C's are 2'-F cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07/714,131
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08/433,126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07/536,428
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                                                                                                         PCT/US96/06059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    138:
                                                                                                                                                                                     3 1/2 diskette, 1.44 MG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 13; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEX31/CIP
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PRIOR APPLICATION DATA:

07/714,131

FILING DATE: 03-MAY-1995

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-433-126A-59/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (303) 793-3433 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tent No.
                                         CLASSIFICATION: 514
PRIOR APPLICATION UNMBER: 07/714,131
FILLING DATE: 10-JUNE-1991
PRIOR APPLICATION NUMBER: 07/536,428
APPLICATION NUMBER: 07/536,428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE: OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NETELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 21-OCTO
                                                                                                                                                                      SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: STEPHENS, ANDREW
APPLICANT: SCHNEIDER, DAN
APPLICANT: GOLD, LARRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                                                                                                                TLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER:
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                                                                                                                                                                                                    COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                      COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE:
                                                                                                                                         APPLICATION NUMBER: US/OFILING DATE: 03 MAY 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
             FILING DATE: 11-JUNE-1990 IOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/08433126A
                                                                                                                                                                                                                                                                                                     Colorado
                                                                                                                                                                                                                                                                                                                                  8400 E. Prentice Avenue,
                                                                                                                                                                                                                                                                                     USA
                                                                                                                                                                                                                                                                                                                                                  Swanson & Bratschun, L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J. Swanson
                                                                                                                                                                                                                                     Diskette, 3 1/2 diskette, 1.44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-JUNE-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65.0%; Score 13; DB 5; 100.0%; Pred. No. 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     All C's are 2'-F cytosine
                                                                                                                                                                                                                                                                                                                                                                                 241
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07/964,624
                                                                                                                                                         US/08/433,126A
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                                                                                                                                                                                                                                                                                                                                   Suite
                                                                                                                                                                                                                                                                                                                                   200
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 38;
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US-08-433-124A-59/c
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; OTHER INFORMATION:
US-08-433-126A-59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No. 5750342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local Similarity
                                                                                                APPLICATION NUMBER: US/08/433,124A
FILING DATE: 03 MAY 1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 07/714,131
FILING DATE: 10-JUNE-1991
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 07/536,428
APPLICATION UNMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
NAME: BALLY J. SWARBON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (303) 793-34 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
NFORMATION FOR
                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: BYCC
CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
OTHER INFORMATION:
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                             REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: ETELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 2. CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TITLE OF INVENTION: TARGET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 21-OCTOBER-1992 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: MS-DOS
SOFTWARE: WordPerfect 6.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 87 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Barry J. Swanson REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GOLD, LARRY
                (303)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STEPHENS, ANDREW
                                                                                                                                                                                                                                                                                                                                                                                         IBM pc compatible
YSTEM: MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                              Diskette, 3 1/2 diskette, 1.44 MG
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                                                                    NEX31.2
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Pred. No.
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US-08-976-413A-59/c
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                                                                                                                TELEFAX: (303) 793-3433 INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
PRIOR APPLICATION NIMBER: 07/536,428
                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: WordPerfect 8.0
CURRENT APPLICATION DATA:
                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
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PPLICANT: SPECK, ULRICH
ITLE OF INVENTION: NUCLEIC ACID LIGANDS OF TISSUE TARGET
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM pc compatible OPERATING SYSTEM: MS-DOS
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                                                                                                                                                                          NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,
REFERENCE/DOCKET NUMBER:
                                          LENGTH: 87 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 11-JUN
                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 08/4: FILING DATE: 03-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 21-NOVEMBER-1997
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les 13; Conserv
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                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Englewood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
OTHER INFORMATION: All C's are 2'-F cytosine
                              TOPOLOGY: linear
                                                                                                                                             TELEPHONE:
                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/976,413A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STEPHENS,
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                                                                                                                               (303)
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00 E. Prentice Avenue, Suite 200
                                                                                                                                             (303)
                                                                                                                                                                                                                                                                                                                                            .10-JUNE-1991
                                                                                                                                                                                                                                          UMBER: 07/964,624
21-OCTOBER-1992
                                                                                                                                                                                                                                                                                          11-JUNE-1990
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                                                                                                                                               793-3333
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RESULT 12
PCT-US96-06059-59/c
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CT-US96-06059-59
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                                                                                                                                                                TELEFAX: (303) 793-34: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 0.
FILING DATE: 11-TUNE-
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 0.
FILING DATE: 21-OCTOB
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OTHER INFORMATION: All U's are 2'-F uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM pc com
        PEATURE: OTHER INFORMATION: All U's are 2'-F uracil
                                         FEATURE:
OTHER INFORMATION:
                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 87 base pairs
                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 03-MAY-PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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APPLICATION NUMBER:
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CLASSIFICATION:
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les 13; Conservative
                                                                                                                                                                                                                                                  NAME: Barry J. Swanson REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/US96/06059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: NEX31.2
                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
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                                                                                TOPOLOGY: linear
                                                                                                STRANDEDNESS:
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                                                                                                              nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IBM pc compatible
                                                                                                                                                                                                                                                                                                     21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Diskette, 3 1/2 diskette, 1.44 MG
                                                                                                                                                                                                                                                                                                                                                      11-JUNE-1990
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                                               All C's are 2'-F cytosine
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ADDRESSEE:

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RESULT 14
US-09-005-069-91/c
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Matches
Patent No. 53247.

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTER, SHIRLEY WU
APPLICANT: WALLENFELS, LYDDA
TITLE OF INVENTION: MOVEL ECTOPARASITE SALIVA PROTEINS
TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
TITLE OF SECUENCES: 107
                                                                                                                                                                Sequence 91, Application US/09005069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 91,
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                Query Match
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APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTER, SHIRLEY WU
APPLICANT: WALLENFELS, LYNDA
TITLE OF INVENTION: NOVEL ECT
TITLE OF INVENTION: AND APPAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (303) 863-0223 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: CONNELL, GARY J.
REGISTRATION NUMBER: 32,020
REFERENCE/DOCKET NUMBER: 26
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 863-9700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/630,822A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                  Local
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CITY: Denver
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                                                                                                                                                                                                                                                                                                                                                                                                                   linear
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; LENGTH: 306 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: CDNA
US-09-005-069-91
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US-09-171-156A-40/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/630,822
FILING DATE: 11-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 1...
STREET: Denver
CITY: Denver
COlorado
TIS.A.
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REFERENCE/DOCKET NUMBER: 26
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 863-9700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                          COMPUTER READABLE FORM:

MEDCIUM TYPE: Ploppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

OPERATING SYSTEM: PC-DOS/MS-DOS

OPERATION DATA:

SOUTWARE: Patentin Release #1.0, Version #1.

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/99/171,156A

FILING DATE: 04-Max-1999

CLASSIFICATION: <Unknown-
ATTORNEY/AGENT INFORMATION:

NUMBER: OFF. 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: CONNELL, GARY J
                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 88 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS AND APPARATUS TO COLLECT SUCH PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Hunter, Shirley Wu
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                                                                                                                                                                                                                                                                           STATE: CO
                                                                                                                                                                                                                                                                                              CITY: DENVER
                                                                                                                                                                                                                                                                                                              ADDRESSEE: SHERIDAN ROSS P.C. STREET: 1560 BROADWAY, SUITE 1200
NAME: Connell, Gary J.
REGISTRATION NUMBER: 32,020
                                                                                                                                                                                                                                                       COUNTRY: U.S.A.
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1700 Lincoln Street, Suite 3500
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/cgn2_6/ptodata/1/pubpna/US09B PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09 NEW PUB.seq:*
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cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
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       6/ptodata/1/pubpna/US08_
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   US-10-194-035-32

US-10-194-035-34

US-10-194-035-38

US-10-194-035-72

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US-10-068-160-16

US-10-068-160-54

US-10-068-160-15

US-10-068-160-12

US-10-068-160-12

US-10-194-035-72

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PUBCOMB.seq:*
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Sequence 32, Appl
Sequence 34, Appl
Sequence 38, Appl
Sequence 43, Appl
Sequence 43, Appl
Sequence 72, Appl
Sequence 1, Appl
Sequence 54, Appl
Sequence 54, Appl
Sequence 73, Appl
Sequence 12, Appl
Sequence 12, Appl
Sequence 27, Appl
Sequence 27, Appl
Sequence 27, Appl
Sequence 65, Appl
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45	44	43	42						36	35		33				29	28	27	26	25	24	23	22	21	20	19	18	17	16
14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
70.0	70.0	70.0	70.0	70.0	70.0	70.0		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	•	•	70.0	70.0	70.0	•	70.0	70.0
50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	20	20	20	20	20	20	20	20	20	18
11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10	10	15	15	15	15	15	13	13	13	13	15
US-09-978-643A-294	US-09-978-187B-294	-757A-	-09-999-830A-29	-193A-	US-09-978-423A-294	-09-918-585A	-09-978	915A	US-09-999-833A-294	-564A-2	-09-978-403A-2	-09-978-191A-2	-09-978-585A-2	-09-978-608A	-189-29	832A-	US-09-978-192A-294	697-2	-978	-068-160-	-10-068-160-	US-10-068-160-38	-10-068-16	US-10-068-160-7	-10-	-10-194-035-	-10-194-03	ş	US-10-068-160-16
Sequence	Sequence	Sequence	Sequence	Sequence	æ		ø		Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence
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ALIGNMENTS

RESULT 1 US-10-194-035-32

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PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEO ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 32
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
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                                                                                                                                                    ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-32
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Publication No. US20030144229A1
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: 1SHII, Ken
                                                                                          Query Match
Best Local &
                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLECTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                        1 GGTGCATCGATGCAGGGGGG 20
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GGTGCATCGATGCAGGGGG 20
                                                                          Conservative
                                                                                            100.0%; Score 20; 100.0%; Pred. No.
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                                                                            Mismatches
                                                                                            0.036;
                                                                                                                 DB 13;
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RESULT 2

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US-10-194-035-34
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US-10-194-035-37
                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-37
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LENGTH: 20
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Best Local Similarity
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Ver.
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ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                         TYPE: DNA
                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                       ENGTH: 20
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Local Similarity 100.0%;
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GGTGCATCGATGCAGGGGGG 20
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Pred. No. 0.036;
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Pred. No. 0.036;
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
FILE REFERENCE: 4239-53317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILLING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 43
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
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Matches '
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LENGTH: 20
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Best Local
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODBOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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                                                                                                                                                                                        FEATURE:
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Conservative 0
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Pred. No. 0.036;
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                                                                                                                                       ; OTHER INFORMATION: Oligonucleotide US-10-068-160-1
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                                                                                   Query Match
Best Local :
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Best Local (
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APPLICANT: THE GOVERNMENT OF THE UNITED
APPLICANT: SECRETARY OF THE DEPARTMENT
                                                                   Matches
                                                                                                                                                                                                                           SEQ ID NO 1
LENGTH: 20
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SEQ ID NO 72
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                                                                                                                                                                                                                                                          FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                 TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                         FEATURE:
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GGTGCATCGATGCAGGGGGG 20
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VERTHELYI, Daniela
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                                                                   Conservative
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100.0%; Pred. No. 0.036;
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Pred. No. 0.036;
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OF HEALTH
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SOFTWARE: Patentin version 3.1
SEQ ID NO 54
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE: FEATURE: Office INFORMATION: Oligonucleotide
US-10-068-160-54
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                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 119
SOFTWARE: PATENTIN VEY. 2.1
SEQ ID NO 53
LENGTH: 19
                                                              Matches
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                                                                                               Query Match
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APPLICANT:
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-61999
                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR TILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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CURRENT FILING DATE: 2002-02-06
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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                                                                                                                                                                 TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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US-10-068-160-12
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                                                                                                                                                          US-10-068-160-12
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Best Local :
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APPLICANT: ISHII, Ken
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
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CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/068,160 CURRENT FILING DATE: 2002-02-06
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE
FILE REFERENCE: 4239-61999
                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 120
                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
                                                                                                                                                                         ORGANISM: Artificial Sequence FEATURE: OTHER INFORMATION: Oligonucleotide
                                                                                                                                                                                                                                         TYPE: DNA
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ORGANISM: Artificial Sequence
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RESULT 12 US-10-068-160-38

RESULT 14 US-10-194-035-71 ; Sequence 71, A

Application US/10194035

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RESULT 13
US-10-194-035-27
; Sequence 27, Application US/101; Publication No. US20030144229A1
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                                                                                                                                    ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-27
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FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: US/10/10/1122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-14
NUMBER OF SEQ ID NOS: 119
CONTENTS SEQ ID NOS: 119
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Best Local S
Matches 18
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SEQ ID NO 38
LENGTH: 20
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
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                                                                                                                                                                          ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                          TYPE: DNA
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VERTHELYI, Daniela
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Pred. No.
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Pred. No.
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CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 65
LENGTH: 20
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US-10-068-160-65
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Search completed: January 20, 2004, 20:51:02 Job time: 133.941 secs
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                                                                                                                                                                                                                                                                                           ; TYPE: DNA
ACTIONAL SEQUENCE
; PEATURE:
; OTHER INFORMATION: Oligonucleotide
US-10-068-160-65
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 71
LENGTH: 16
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Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                        Query Match
Best Local :
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                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
CURRENT FILING UNMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: 4239-61999
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLICODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Artificial Sequence
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                                                                                                                                                                                            75.0%; Score 15; DB 15; Length 20; larity 100.0%; Pred. No. 27; Conservative 0; Mismatches 0; Indels
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Maximum DB seq length: 500
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                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Copyright (c) 1993 - 2004 Compugen Ltd.
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AW145716 ga33h05.y	AW145716		397	70.0	14	9
N	BW238122		375	•	14	w
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-	0	φ	360		14	44
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168 H	HSM073336		285	70.0	14	w
41	BH220641		249	70.0	14	ω
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80106 RC1-Ū	8010	13	207	70.0	14	on
BH861949 SALK_0883	BH861949	28	113	70.0	14	01

ALIGNMENTS

	JOURNAL COMMENT	TITLE	AUTHORS	REFERENCE	ORGANISM	KEYWORDS SOURCE	VERSION VERSION		LOCUS
Center For Genetic Resource Information National Institute of Genetics 1111 Yata, Mishima, Shizuoka 411-8540, Japan Tel: 81-559-81-6856 Fax: 81-559-81-6855 Email: tshini@genes.nig.ac.jp	plants genome Unpublished Contact: Tadasu Shin-i	,M. Comparison of the moss Physcomitrella patens genome with flowering	Fujita, T., Shin-i, T., Seki, M., Kamiya, A., Uchiyama, I., Nishiyama, T., Carninci, P., Hayashizaki, Y., Shinozaki, K., Kohara, Y. and Hasebe	Bryopsida; Funariidae; Funariales; Funariaceae; Physcomitrella. 1 (bases 1 to 177)	Physcomitrella patens subsp. patens Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Bryophyta;	EST. Physcomitrella patens subsp. patens	BJ193666.1 GI:18361600	caulonemata and rhizoid-like protonemata Physcomitrella patens subsp. patens cDNA clone pphn19j13 5', mRNA sequence.	BJ193666 normalized full length cDNA library, chloronemata,

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REFERENCE
AUTHORS
TITLE
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DEFINITION
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BQ703645/c
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EST672 almond cDNA library Prunus dulcis cDNA 5',
BQ703645
BQ703645.1 GI:30271226
EST.
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1 (bases 1 to 210)

7 Jiang, Y.Q. and Ma.R.C.
Generation and Analysis of 814 Expressed Sequence Tags from Almond (Prunus dulcis) Pistils

Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Jiang YQ, Ma RC
Lab of Plant Functional Genomics
Beijing Agro-biotechnology Research Center
Banjing Cun, No.301, Haidian Dis., Beijing 100089, P.R. China
Tel: 8610 5150 3831
Fax: 8610 5150 3980
                                                                                                                                                                                                                                                                                                                    Prunus dulc:
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                  /tissue type="pistils"
/clone_lib="almond cDNA library"
/clone_lib="almond cDNA library"
/note="Organ: flower; Vector: pZL1; Site_1: Sal I; Site_2:
Not I; Total RNAs were isolated from pistils using Trizol
reagent (Invitrogen, USA). Then, polyA+ mRNA was isolated
using oligo(dT) celluloge as described. cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chloronemata, caulonemata and rhizoid-like
31 c 58 g 57 t
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rhizoid-like protonemata"
/clone_lib="normalized full length cDNA library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Physcomitrella patens subsp. patens"
/mol_type="mRNA"
/sub_species="patens"
                                                                                                                                                                                                                         organism="Prunus dulcis"
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'db_xref="taxon:3755"
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lone="pphn19j13"
using a lambda-zipLox cDNA synthesis kit (CAT
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Tec, Germany). XhoI
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; eurosids I; Rosales; Rosaceae; Amygdaloideae; Prunus.
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EST1175 almond cDNA library Prunus
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Banjing Cun, No.301, Haidian Dis., Beijing 100089, P.R. China
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished
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Generation and Analysis of Expressed Sequence Tags from Almond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seq primer POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: rcmal@yahoo.com
Insert Length: 211 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Jiang YQ, Ma RC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Prunus dulcis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CA854145.1 GI:30271704
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Prunus dulcis) Pistils
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TGCATCGATGCAGGG 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  primer: M13/pUC reverse
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                                                                                                                                       /note=Torgan: flower; Vector: pZL1; Site 1: Sal I; Site 2:
Not I; Total RNAs were isolated from pistils using Trizol
reagent (Invitrogen, USA). Then, polyA+ mRNA was isolated
using oligo(dT) cellulose as described. cDNA was
synthesized using a lambda-zipLox cDNA synthesis kit (CAT
No.19643-014, Invitrogen, USA). The phage library was
converted through mass excision to a plasmid library in
the vector pZL1. The plasmid library was plated on 15-cm
LB agar plates with 100ug/mL amplicillin. Individual clones
were picked at random and propagated. The 5'ends of the
cDNA clones were sequenced on ABI Prism377 DNA sequencer."
81 a 29 c 39 g 62 t
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                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="pistils"
/clone_lib="almond cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Prunus dulcis"
/mol_type="mRNA"
/db_xref="taxon:3755"
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100.0%; Pr
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100.0%; Pr
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k; Pred. No. 6.5
0; Mismatches
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Pred. No.
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                                                                   DB 14; 1
6.5e+02;
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6.5e+02;
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REFERENCE
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CB966250
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Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota, Viridiplantae, Streptophyta, Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                               BH861949 113 bp DNA linear GS SALK 088338 Arabidopsis thaliana TDNA insertion lines thaliana genomic clone SALK_088338, genomic survey sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity
15; Conserv
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

1 (bases 1 to 113)

1 (bases 1 to 113)

1 (C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., Cheuk, R., Gadrinab, C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., Prednis, L., Shinn, P., Zimmerman, J. and Ecker, J.R.

2 Sequence_Indexed Library of Insertion Mutations in the
                                                                                                                                                                          Arabidopsis thaliana (thale cress)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
Contact: Reddy AR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Markandeya, G., Ravindra Babu, P., Venkat Reddy, B., Nagabhushana, I., Chandra Sekhar, A., Bennetzen, J.L., Ramakrishna, W. and Reddy, A.R. ESTs from a normalized cDNA library of drought stressed rice seedlings (Oryza sativa L.cv Nagina 22)
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CB966250.1 GI:30228359
EST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: arjulsl@uohyd.ernet.in:
Insert Length: 374 Std Error: 0.00
Seq primer: CGCCAGGGGTTTCCCAGTCACGAC.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="Entire leaf tissue"
/dev stage="35 day-old seedlings"
/clone_lib="Drought stress (leaf)"
/clone_lib="Drought stress (leaf)"
/note="Organ: Leaf; Vector: T7T3Pac; ESTs from normalized
leaf cDNA Library from drought stressed seedlings "
113 c 82 g 73 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Oryza sativa (indica cultivar-group)"
(mol type="mRNA"
/cultivar="Nagina 22 (indica sub sp)"
/db xref="taxon:39946"
/clone="NL34_G07"
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Oryza sativa (indica cultivar-group)
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. 6.4e+02;
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RESULT 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63 GTGCATCGATGCAG 50
                                                                                                                                                               Contact: SINDSOM PRODUCTION OF Cancer Genetics
Ludwig Institute for Cancer Research
Ludwig Institute for Cancer Research
Prudente 109, 4 andar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence.
BQ380106
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Salk Institute Genomic Analysis Laboratory (SIGNAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
Tel: 858 453 4100 x1752
Fax: 858 558 6379
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=RC1&t2=RC1-UT0012-020800-011-a02_1&t3=2000-08-02&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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RC1-UT0012-020800-011-a02_1 UT0012
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                                                                                                                                                                                                                                                                                                proc. Natl. Ac
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: ecker@salk.edu
                                                                                    Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
                                                                                                                              Tel: +55-11-2704922
                                                                                                                                                                                                                                                                                                                                          Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
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/clone lib="Arabidopsis thaliana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  be found at
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the site of insertion. Details of the protocols used co
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/mol_type="genomic DNA"
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Pred. No.
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Homo sapiens
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RESULT 7
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RESULT 8
BH220641/c
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TITLE
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                           Kyoto University
Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
Tel: 81-75-753-4081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona; Phlebobranchia; Cionidae; Ciona.

1 (bases 1 to 249)
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Ciona intestinalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AV993468 Nori Satoh unpublished cDNA library, larva intestinalis cDNA clone cilv25g13 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                           Email: satoh@ascidian.zool.kyoto-u.ac.jp.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Nori Satch
Department of Zoology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Expressed genes in Ciona intestinalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Satoh, N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AV993468.1 GI:19484802
                                                                                                                                                                                                                                                                                                                                                                                             Fax: 81-75-705-1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       h 70.0%; Score 14;
Similarity 100.0%; Pred. No.
                                                                                                                                               Similarity
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                                                                                                                                                                                                            /tissue_type="whole animal"
/dev_stage="larva"
/dev_stage="Nori Satch unpublished cDNA library, larva"
/clone lib="Nori Satch unpublished cDNA library, larva"
/ clone lib="Nori Satch unpublished cDNA library, larva"
                                                                                                                                                                                                                                                                                           /organism="Ciona intestinalis"
/mol_type="mRNA"
/db_xref="taxon:7719"
                                                                                                                                                                                                                                                                                                                                               L. .249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Satou, Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mol_type="mRNA"
db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                               clone="cilv25g13"
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ie_lib="UT0012"
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                                                                 102
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                                                                                                                                             Score 14; DB 9;
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Best Local
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             EST; expressed sequence tag
                                            Homo sapiens mRNA; EST DKFZp686B17235_r1
                                                                                09-MAY-2003
09-MAY-2003
                                                                                                                                BX483168.1
                                                                                                                                                                BX483168;
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                                                                                                                                                                                                                                                                                                                                                14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Department of Biological Sciences
Stanford University
855 California Ave, Palo Alto, CA 94304, USA
Tel: 650 723 2227
Fax: 650 725 8221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Maize genomic sequences 
Unpublished
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BH220641
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plate: 1006096 row: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: walbot@stanford.edu
                                                                                                                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="1006 - RescueMu Grid G"
/clone_lib="1006 - RescueMu Grid G"
/note="forgan: leaf; Vector: RescueMu (engineered from pBlueScript backbone), Site 1: BamHI, Site 2: BgIII;
RescueMu is a 4.9 kb, modifIed maize Mu transposon
designed to allow plasmid rescue from total genomic DNA.
Mu elements insert preferentially into transcription
units. For more information on RescueMu, go to the web
site 'www.zmb.iastate.edu' and follow the links for
'RescueMu.' Grid G was grown at Stanford in 2000. DNA was
extracted from leaf punches, double digested using BamHI
and BgIII, and ligated to form circular plasmids. DH10B
cells were transformed and then screened on LB plates with
ampicillin."
                                                                                                                                                                                                                                                                                                                                                                                                                                44
                                                                              (Rel.
                                                                                                                                                                                                                                                                                                                                                Conservative
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/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="genomic DNA"
/cultivar="mixed background W23/A188/B73"
/db_xref="taxon:4577"
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C
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Last updated, Version 1)
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, 2.1e+03;
hes 0;
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                                                 (from clone DKFZp686B17235)
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Best Local :
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Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de;
sequenced by GBF (National Research Centre for Biotechnology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This clone (DKFZp686B17235) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059 Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \mathtt{Lt\bar{d}} . Braunschweig/Germany) within the cDNA sequencing consortium of the German Genome Project.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Han M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bloecker
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Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                214
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            v
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                                                                                                                                                                                                                                                                                                                                   BM856929 292 bp mRNA linear EST 06-MAR-2002 K-EST0141064 S21SNU520 Homo sapiens cDNA clone S21SNU520-76-D03 5',
Email: yongsung@mail.kribb.re.kr
Plate: 76 row: D column: 03
                                            52 Eoeun-dong Yuseong-gu, Tel: +82-42-860-4470
                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                              Fax: +82-42-860-4409
                                                          Korea Research Institute of Bioscience & Biotechnology 52 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea
                                                                                        Genome Research Center
                                                                                                        Contact: Kim YS
                                                                                                                      Unpublished
                                                                                                                                     21C Frontier Korean
                                                                                                                                                                 Oh, K.J
                                                                                                                                                                               Kim, N.S.,
                                                                                                                                                                                                                                             Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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m, N.S., Hahn, Y.,
                                                                                                                                                                                                                                                                                                                      sequence.
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                                                                                                                                                                 ., Cheong, J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone="DKPZp686B17235"
/clone_lib="686 (synonym: hlcc3). Vector pSport1_Sfi; host
DH10B; sites SfiIA + SfiIB"
/dev_stage="adult"
/tissue_type="cDNA-collection"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/organism="Homo sapiens"
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Pred. No. 2.1e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL/GenBank/DDBJ databases D-85764 Neuherberg, GERMANY
                                                                                                                                   Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 CATCGATGCAGGGG 18
                                                                                                                                                                                                                               Sakyo-ku, Kyoto, Ky
Tel: 81-75-753-4081
Fax: 81-75-705-1113
                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 306)
Satou, Y., Shin-i, T., Kohara, Y. and Satoh, N.
Expressed genes in Ciona intestinalis (2002c)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ciona intestinalis
Ciona intestinalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BW097424 Nori Satoh unpublished cDNA library, tailbud intestinalis cDNA clone rcitb058009 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                Contact: Nori Satoh
Department of Zoology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BW097424.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BW097424
                                                                                                                                                                                      Email: satoh@ascidian.zool.kyoto-u.ac.jp.
Location/Qualifiers
                                                                                                                                                                                                                                                                                          Kyoto University
                                                                                                                                                                                                                                                                                                                                                           Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Phlebobranchia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab host="Top10F'"
//clone lib="$218NU520"
//clone lib="$218NU520"
//note="Organ: Stomach; Vector: pTZ18RP1; Site_1: EcoRI;
//note="Organ: Stomach; Vector: pTZ18RP1; Site_1: EcoRI;
//note="Organ: Stomach; Vector: pTZ18RP1; Site_1: EcoRI;
//note="Organ: Stomach; Vector: pTZ18RP1; Site_1: Rotaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (BAP) and then decapped intact mRNA was ligated with DNA-RNA linker including EcoR I site by treatment of T4 RNA ligase and the first strand cDNA was synthesized from oligo dT-selected mRNA by priming with dT-tailed vector. The dT-tailed vector was adjusted to have about 60nt. The cDNA vector was circularized with E. coli DNA ligase after digestion of converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of competent cells E. coli Top10F' by electroporation method. The cDNA librarise constructed by this method are full-length enriched cDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
/tissue_type="whole animal"
/dev stage="tailbud embryo"
/clome lib="Nori Satoh unpublished
embryo"
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cell_line="SNU-520"
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                                                                                                      'mol_type="mRNA"
'db_xref="taxon:7719"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    clone="S21SNU520-76-D03"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'mol_type="mRNA"
'db_xref="taxon:9606"
                                                                                  clone="rcitb058009"
                                                                                                                                             organism="Ciona intestinalis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:24311237
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                       cDNA library, tailbud
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                                                                                     82
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BH019162 352 bp DNA linear GSS 25-MAY-2 L242k.d_HygT3.1 Leishmania major Friedlin Cosmid Genomic Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: smith@email.marc.usda.gov Single pass sequencing. Bases called and trimmed with phred v0.980904.e. Vector identified by cross match with the -mini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Tel: 402 762 4366
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EST cluster assembly Mamm. Genome 13 (8), 475-478 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus. 1 (bases 1 to 329)
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EST.
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Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                            FORWARD: AGGAAACAGCTATGACCAT
BACKWARD: GTTTTCCCAGTCACGACG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Porcine gene discovery by normalized cDNA-library sequencing and
                                                                                                                                                        Similarity
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                                                                                                                                         70.0%; ilarity 100.0%; Conservative
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                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                               /organism="Sus scrofa"
/mol type="mRNA"
/db_xref="taxon:9823"
/tissue_type="pooled"
/lab_host="DH10B"
                                                                                                                                                                                                                      /clone lib="MARC 1PIG"
/note="Vector: pCMV SPORT6; Site 1: Not1; Site 2: Sal1;
Library made from pooled tissue from day 11, 13, 15, 20,
and 30 embryos."
                                                                                                                                                                                                                                                                                                                                                                  Gocation/Qualifiers
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100.0%; Pr
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                                                                                                                                                        2.1e+03;
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Sultana,R., Quackenbush
                 GSS 25-MAY-2001
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                                                                                                                                                                                                                                                                                 J60 bp mRNA linear EST 04-FE mm14e06.rl Stratagene mouse diaphragm (#937303) Mus musculus clone IMAGE:521506 5' similar to gb:X03208 Mouse group 1 gene (MOUSE);, mRNA sequence.
AA066330
                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 360)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T. Geisel,S., Kucaba,T., Lacy,M., Le,M., Marrin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Myler, P.J., Vogt, C., Cawthra, J., Klacking, M., Marty, A., Mack, J., Munden, H., Nguyen, D., Robertson, L., Sisk, E., Fazelinia, G., Aggarwal, G., Nelson, S., Seyler, A., Worthey, E. and Stuart, K. Leishmania major Friedlin Cosmid End Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Leishmania major genomic clone L242k, genomic survey sequence.
BH019162
BH019162.1 GI:14197868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seattle Biomedical Research Institute
4 Nickerson Street, Seatttle, WA 98109-1651, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leishmania major
Eukaryota; Euglenozoa;
                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seq primer: HygT3
Class: cosmid ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 206 284-8846
Fax: 206 284-0313
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Unpublished
                 Waterston, R.
The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                      AA066330.1
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/strain="Friedlin"
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Email: mouseest@watson.wustl.edu
Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                Reboul, J., Vaglio, P., Rual, J.F., Lamesch, P., Martinez, M., Armstrong, C.M., Li, S., Jacocot, L., Bertin, N., Janky, R., Moore, T., Hudson, J.R., Hartley, J.L., Brasch, M.A., Vandenhaute, J., Boulton, S., Endress, G.A., Jenna, S., Chevet, E., Papasotiropoulos, V., Tolias, P.P., Ptacek, J., Snyder, M., Huang, R., Chance, M.R., Lee, H., Doucette-Stamm, L., Hill, D.E. and Vidal, M.R., Lee, H., C. elegans ORFecome version 1.1: experimental verification of the genome annotation and resource for proteome-scale protein
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Location/Qualifiers
1 Jimmy Fund Way Smith 858, BOSTON, MA 02115, USA
Tel: 617 632 5180
Fax: 617 632 5739
Email: Marc_Vidal@dfci.harvard.edu
Sequence tag of Gateway entry clones. The primers used were designed on the predicted protein encoding ORF. C. elegans C cloning project: Contact david_hill@dfci.harvard.edu or
                                                                                                                                                                 Marc Vidal Laboratory
Dana Farber Cancer Institute
                                                                                                                                                                                                                     Nat. Genet., (20
Contact: Vidal M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Caenorhabditis elegans
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea
; Rhabditidae; Peloderinae; Caenorhabditis.
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WashU-HHMI Mouse EST Project
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/note="Organ: diaphragm; Vector: pBluescript SK-; Site 1:
EccRI; Site_2: xhol; Cloned unidirectionally from mRNA_
prepared from diaphragm muscle. Primer: Oligo dT. Average
insert size: 1.5 kb. Uni-ZAP XR Vector; ~5' adaptor
sequence: 5' GARTTCGGCACGAG 3' ~3' adaptor sequence: 5'
CTCGAGTTTTTTTTTTTTTTTTTT 3'"

5 c 120 g 84 t
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/dev_stage="adult"
/iab_host="SOLR (kanamycin resistant)"
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/db_xref="taxon:10090"
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175 ATCGATGCAGGGG 188
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                                                                                                                                          /note="The AD-wrmcDNA library was generated with poly(A)+RNA isolated from both hermaphrodite and male N2 worms of all larval stages, embryos, adults and dauers and the subsequent generation of cDNAs by poly(A) priming. The cDNAs were cloned into ppc86" a 60 c 80 g 107 t
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//Lisex="whole animal"
//Lise stages mixed stage"
/clone_lib="AD-wrmcDNA"
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                                                                                                                                                                                                                                                                                                                        /mol_type="mRNA"
/strain="N2"
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2.1e+03;
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Search completed: January 20, 2004, 20:01:22 Job time: 1226.76 secs

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is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

SOURCE SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL	RESULT 1 AX194432 LOCUS DEFINITION ACCESSION VERSION VERSION		4 4 U 4	43	42	4 3 9	38	36	ມ ພ ກ 4		31 6	30 30	27 28	26	2 2 5 4	23	21	20.	108	17	15	µ μ 4	12	115	. 0	80 ~	ı o	Ω. †	. ω	21	Result No. S
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Oligodeoxynucleotide and its use to induce
Patent: WO 0151500-A 37 19-JUL-2001;
Secretary of the Department of Health and F
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 34 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
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/mol types"genomic DNA"
/db_xref="taxon:32630"
/notes"Synthetic DNA"
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
/organism="synthetic construct"
/mol type="genomic DNA"
/db_xref="texon:32630"
/note="Synthetic DNA"
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Klinman,D., Ishii,K. and Verthelyi,D. Oligodeoxynucleotide and its use to induce Patent: WO 0151500-A 43 19-JUL-2001; Secretary of the Department of Health and F
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synthetic construct
artificial sequences.
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Sequence 43 from Patent
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AX194443.1 GI:15385099
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/note="Synthetic DNA"
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/mol type="genomic DNA"
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/note="Synthetic DNA"
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RESULT 6
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RESULT 8
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500A 72 19-UUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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AX194472
 AX352209
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Patent: WO 0193902-A 494 13-DEC-2001;
Biosynexus Incorporated (US)
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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/mol type="genomic DNA"
/db xref="taxon:32630"
/note="Synthetic HDR"
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Vaccine against RSV
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Mond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Patent: WO 0211761-A 55 14-FEB-2002;
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Vaccine against RSV
Patent: W0 0211761-A 56 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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Vaccine against RSV
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Immunoreactive CpG	AAS09656	22	20	•	18.4	ັນ
Immunoreactive CpG	AAS09654	22	20	'n	18.4	Ë
Immunoreactive CpG	AAS09651	22	20	٥.	8	Ö
	AAS09650	22	20	'n	œ	Ö
	AAS09632	22	20		œ	8
	AAS09631	22	20	92.0	8	7
Immunoreactive CpG	AAS09590	22	20	٥.	8	9
Immunostimulatory	ABK46501	24	19	ŗ	19	ű
Immunostimulatory	ABK46481	24	19	95.0	19	4
Immunogenic CpG ol	AAC80653	22	19	95.0	19	ũ
E)	AAC80633	22	19	ç	19	ถ
'n	AAS09623	22	19	5	19	μ
	AAS09603	22	19	95.0	19	ö
Immunostimulatory	ABL35537	24	32	100.0	20	Ö
Immunostimulatory	ABL35600	24	30	100.0	20	æ
Immunostimulatory	ABL35595	24	30	100.0	20	7
Immunostimulatory	ABL35607	24	29	•	20	9
Immunostimulatory	ABL35601	24	28	•	20	ຜ
Immunostimulatory	ABL35589	24	28	•	20	Ä
Immunostimulatory	ABL35618	24	22	٠	20	ü
Immunostimulatory	ABL35574	24	22	•	20	ผ
Immunostimulatory	(J	24	20	100.0	20	ŭ
Immunostimulatory	ABL35579	24	20	•	20	ö
Immunostimulatory	ABL35568	24	20	8	20	ω
Immunostimulatory	ABK46500	24	20	8	20	œ
Immunostimulatory	ABK46471	24	20	8	20	7
Immunostimulatory	ABK46466	24	20	8	20	ģ
Immunostimulatory	ABK46465	24	20	•	20	ភ
Immunostimulatory	ABK46462	24	20	8	20	.4
Immunostimulatory	ABK46460	24	20	٥.	20	ω
င် ငည်	AAC80652	22	20		20	'n
င် ဝည် ဝ	AAC80623	22	20	Õ	20	H
င ၄၆ -	m	22	20	Ō	20	0
Immunogenic CpG ol	AAC80617	22	20	100.0	20	9

ALIGNMENTS

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RESULT 1
                                                                                                                                                                hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                     14-JAN-2000; 2000US-0176115.
                                         12-JAN-2001; 2001WO-US01122.
                                                                                                         Synthetic.
                                                                                                                                                                                                                                                             26-SEP-2001
                                                                                                                                                                                                                                                                                  AAS09582;
                                                                                                                                                                                                                                                                                                       AAS09582 standard; DNA; 20 BP
 (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                             19-JUL-2001.
                                                                                    WO200151500-A1
                                                                                                                               Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                                                                     Immunoreactive CpG sequence-containing oligonucleotide
                                                                                                                                                                                                                  sequence; immune response; non-B cell activation; interferon gamma;
                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                        #32
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Result No.

Score

Query

Length

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Description

SUMMARIES

distribution

to have a being printed,

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222222

100.0 100.0 100.0 100.0 100.0

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AAS09584 AAS09587 AAS09588 AAS09588 AAS09593 AAS09622 AAC80612 AAC80614

Immunoreactive CpG
Immunogenic CpG ol
Immunogenic CpG ol

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC sequences is different from another of the multiple CpG sequences.

CC The ODN are useful for inducing an immune response, preferably a cell-

CC mediated immune response, involving non-B cell activation, interferon

CC gamma (IFN gamma) production or a humoral immune response involving B

CC cell activation, antibody and interleukin-6 production in a host, for

CC treating, preventing or ameliorating an allergic reaction, e.g. asthma,

CC cancer, e.g. solid tumour cancer, a disease associated with the immune

CC system e.g. autoimmune disorder or an immune system deficiency, infection

CC induction of immune response improves the efficacy of a vaccine and is

CC used in antisense therapy. The ODN are useful for treating, preventing or

CC coryza, hay fever, bronchial asthma, urticaria (hives), food allergies

CC and other atopic conditions, for improving the efficacy of vaccines

CC and other atopic conditions, for improving the efficacy of vaccines

CC against hepatitis A, B and C, human immunodeficiency virus (HIV) and

CC extractions and autoimmune diseases such as rheumatoid arthritis and

CC extractions and autoimmune diseases such as rheumatoid arthritis and

CC extractions and autoimmune diseases such as rheumatoid arthritis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         symptoms resulting from exposure multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-442129/47.
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                                                                                                                                                                                                        therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least
                                                                                                                                                                                                                                                           CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production;
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS09584 standard; DNA; 20 BP
                   19-JUL-2001
                                                         WO200151500-A1
                                                                                            Synthetic
                                                                                                                                                 schistosomiasis; tuberculosis; acquired immunodeficiency
                                                                                                                                                                   hepatitis; human immunodeficiency virus; HIV; malaria; Francis
lupus erythematosus; rhuumatoid arthritis; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                          Immunoreactive CpG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                      sequence-containing oligonucleotide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       multiple CpG sequences, where one of the Cpf from another of the multiple CpG sequences.
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Pred. No. 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 20;
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                                                                                                                                                                                                                                                                                                                            #34.
                                                                                                                                                                                            Francisella;
                                                                                                                                                   syndrome;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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cc nucleotides comprising multiple CDG sequences, where one of the CDG sequences is different from another of the multiple CDG sequences, where one of the CDG creditated immune response, involving an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon cc gamma (IFN-gamma) production or a humoral immune response involving B cc cell activation, antibody and interleukin-6 production in a host, for cancer, e.g. solid tumour cancer, a disease associated with the immune consistency, e.g. solid tumour cancer, a disease associated with the immune confidency or a symptom resulting from exposure to bio-warfare agent in a human. The cliduction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and crythematosus and autoimmune diseases such as rheumatoid arthritis and cutoir sculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and completed immunodeficiency syndrome (AIDS), Leishmania and complete sclerosis, acquired immunodeficiency syndrome (AIDS), Leishmania and complete sclerosis, acquired immunodeficiency syndrome (AIDS), Leishmania and complete sclerosis, acquired immunodeficiency syndrome (AIDS), Leishmania and complete sclerosis and complete sclero
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                                                              CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prevent an allergic reaction, car symptoms resulting from exposure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-442129/47.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                multiple CpG sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                      AAS09587 standard; DNA; 20
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                                                                                                                                                                                                                                                                                          Immunoreactive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTGCATCGATGCAGGGGGG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B₽;
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                                                                                                                                                                                                                                                                                          sequence-containing oligonucleotide #37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 C;
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Pred. No.
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Ebola; Anthrax; Listeria; ss

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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therapeutic; allergy; asthma; cancer; autoimmune disorder; infection bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                                  AAS09588 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleotides comprising multiple CpG sequences, where one of the Cpsequences is different from another of the multiple CpG sequences
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                                                                        theraneuric. allacer. arthur. arthur. interferon gamma;
                                                                                                                                                 Immunoreactive CpG sequence-containing oligonucleotide #38
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Pred. No.
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RESULT 5 AAS09593

AAS09593 standard; DNA; 20

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26-SEP-2001 AAS09593;

(first entry)

CpG sequence; immune response; non-B cell activation; interferon gamma;

Immunoreactive CpG sequence-containing oligonucleotide #43

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                                                                              Best Loc
Matches
                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                  treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infectio or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing o ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid arthritis and entired and contacting including response to the food and the contactions of the contaction of the contaction are the contactions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for cell activation, antibody and interleukin-6 production in a host, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder an symptoms resulting from exposure to bio-warfare agents, comprismultiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                              Sequence 20
                                                                                                                                                                                                                       multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania ar symptoms resulting from exposure of bio-warfare agent, including Ebola
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                                                                                                                                                                                                          Anthrax and Listeria.
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                                                                                                    Local
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                                                                                                    Similarity
                                  GGTGCATCGATGCAGGGGGG 20
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                                                                                                 100.0%; Score 20; 100.0%; Pred. No.
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26-SEP-2001

(first entry)

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RESULT 6
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                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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100.0%; 5
tive 0;
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Pred. No.
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AAS09622 standard; DNA; 20

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RESULT 7

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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CpG sequence; immune response; non-B cell activation; interferon gamma: IFN-gamma; humoral; antibody production; interleukin-6 production; interpeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  multiple CpG sequences
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                                                                                                                                                        Sequence 20
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                                       GGTGCATCGATGCAGGGGGG '20
GGTGCATCGATGCAGGGGG 20
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                                                                            Conservative
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                                                                                                100.0%;
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AAC AAC8

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                                                                                              CC (AACGUSENI-CBOTTZE). The collaponucleotide are at least 10 bases long CC (AACGUSENI-CBOTZE). The collaponucleotide are at least 10 bases long CC and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or CC 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the CC oligonucleotide optionally have phosphorothicate linkages which make CC them more resistant to degradation. The invention also relates to an CC oligonucleotide optionally have phosphorothicate linkages which make CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated (T-cell) response or a humoral CC (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral CC eells, which then release cytokines, leading to activation of natural CC cells), which then release cytokines, leading to activation of natural CC intertation of T- or B-cells. The induction of an immune response is CC useful for treating, preventing or ameliorating an allergic reaction CC intertaction is gent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic Thinitis, hayfever, CC urticaria, food allergies and other atopic conditions, and the CC infections which may be treated include viral, bacterial, fungal and CC gristoremissis Immune response is the country also be used in the conditions and the conditions of a conditions and the conditions are response in the conditions and the conditions are response in the conditions and the conditions and the conditions and the conditions are response in the conditions and the conditions are provided by the conditions and the conditions are provided by the conditions are provided by the conditions and the cond
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to novel immunogenic CpG oligodeoxynucleotides
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VERTHELYI D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CpG oligodeoxynucleotide, SEQ ID NO:32.
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multiple
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sclerosis),
a disease
associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protozoal;
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                                                    immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide.
                                   ine present sequence of the invention
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11 G;
3 T;
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other;
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                            Query Match
Best Local S
Matches 20
              1 GGTGCATCGATGCAGGGGGG
                            20;
                                  Similarity
GGTGCATCGATGCAGGGGG
                            Conservative
                                   100.0%;
                                          100.0%;
                            0
                                  Score
Pred.
20
             20
                            Mismatches
                                    NO;
                                          DB 22;
                            <u>,</u>
                                          Length
                            Indels
                            0
                            Gaps
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0

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RESULT 8
AAC80614
ID AAC8
CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; Induction; B-cell response; antibody production; immune response induction; vaccine; altergy; asthma; infection; bacterial; viral; fungal; protozoa; parasitic; tuberculosis; ADS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                 antiasthmatic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAC80614 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                              immune deficiency; biological warfare agent; cytostatic; antiarthritic;
antimicrobial; antiallergic; protozoacide; tuberculostatic;
antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                             antimicrobial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunogenic
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WO200061151-A2 Synthetic

12-APR-2000; 2000WO-US09839 12-APR-1999; 19-OCT-2000

9905-0128898

(KLIN/) KLINMAN D. (ISHI/) ISHII K. (VERT/) VERTHELYI D.

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment o allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -

Claim 4; Page 29; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an comprising an oligonucleotide of 6

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RESULT 9
AAC80617
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Best Local
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                                                                                                                                                                                                             CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiamicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide
12-APR-1999;
                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAC80617 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                      12-APR-2000; 2000WO-US09839
                                                                                                                                WO200061151-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:37.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GGTGCATCGATGCAGGGGGG 20
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99US-0128898
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           other;
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                                                                                                                                                                                                                                                                                                                                    protozoal;
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RESULT 10 AAC80618

AAC80618

standard; DNA; 20

₽P

문 S

Matches Query Match Best Local

20;

Conservative

0

GGTGCATCGATGCAGGGGGG 20 GGTGCATCGATGCAGGGGG 20

Similarity

100.0%; 100.0%;

Score 20; Pred. No. Mismatches

DB 22; <u>,</u>

Length 20;

0,

Gaps

0

14-FEB-2001 AAC80618;

(first entry)

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protozoal infections such as tuberculosis, AIDS, leishmania and schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treatin solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                     acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic conditions, and the infectious which may be treated include viral, bacterial, fungal and infections which may be treated include viral, bacterial, fungal and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention and a targetting agent, and a pharmaceutical composition comprising the oligonuclectide delivery complex. The oligonuclectides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonuclectides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonuclectide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the
Sequence 20 BP; 3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 4; Page 29; 46pp; English.
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(ISHI/) ISHII K.
(VERT/) VERTHELYI D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ishii K,
  3 C; 11 G; 3 T; 0 other;
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vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CpG oligodeoxynucleotide, SEQ ID NO:38.
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WO200061151-A2

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898

(KLIN/) KLINMAN D. (ISHI/) ISHII K. ISHII K. VERTHELYI D.

Klinman D, Ishii K, Verthelyi Ö

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent

Claim 4; Page 30; 46pp; English.

coligonuclectides optionally have phosphorothicate linkages which make coligonuclectides optionally have phosphorothicate linkages which make coligonuclectide delivery complex comprising an oligonuclectide of the clivery to and a targetting agent, and a pharmaceutical composition and a targetting agent, and a pharmaceutical composition comprising the oligonuclectide delivery complex. The oligonuclectides are able to induce either a cell-mediated (T-cell) response or a humoral comprising the oligonuclectide of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a cell-mediated response, and those cof the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral composition of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral compose. It is thought that after administration, the oligonucleotide cells, which then release cytokines, leading to activation of natural compose. It is thought that after administration, the oligonucleotide cells, which then release cytokines, leading to activation of natural compose can then occur by activation of T- or B-cells. The induction of an immune response is composed to treating, preventing or ameliorating an allergic reaction composition of the sequence of the sequence of composition of the composition of composition of the composition of composition of the composition of the composition of composition of the composition of the composition of composition of the composition of the composition of the composition of the composition of compositions and the composition of the comp The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the antisense therapy and to improve the efficacy of a vaccine oligonucleotide is preferably administered to lymphocytes e solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The administered to the host

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The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell) antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; the cell response; antibody production; immune response induction; bacterial; viral; fungal; protozoa; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
                                                                                                                                                                                                                                                                                     Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating
                                                                                                                                                                                                                                      Claim 4; Page 30; 46pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immune deficiency; biological warfare agent; cytostatic; antiarthritic;
antimicrobial; antiallergic; protozoacide; tuberculostatic;
antiasthmatic; dermatological; phosphorothioate; ss.
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) ISHII K.
) VERTHELYI D.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                         a bio-warfare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ID NO:43
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                                                                                                                                                                                                                                                                       agent
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protozoal;
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RESULT 12
AAC80652
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC anti-allergenic agent or anti-infectious agent. The allergic conditions consistency which may be treated include eczema, allergic rhinitis, hayfever, confictions, food allergies and other atopic conditions, and the confictions which may be treated include viral, bacterial, fungal and confictions which may be treated include viral, bacterial, fungal and confictions which may be treated include viral, bacterial, fungal and confictions may be treated include viral, bacterial, fungal and confictions such as tuberculosis, AIDS, leishmania and constitutions and multiple sclerosis, and sease associated with confident arthritis and multiple sclerosis), a disease associated with confimune system deficiency, and symptoms resulting from exposure to an confidency, and symptoms resulting from exposure to an confidency and arthritis and immunogenic CGG oligonucleotide, either confidency and to improve the efficacy of a vaccine. The continuous activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CGG oligonacleotide is preferably administered to lymphocytes ex vivo, confidency activated lymphocytes which are then administered to the host.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is
                                                                                                                                                                                                                                                                                                                                                          B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         useful for treating, preventing or ameliorating an allergic reaction (preferably aethma), or an infection, where an immunogenic CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activ cell-mediated immune response; T-cell response; humoral response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAC80652 standard; DNA; 20
                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-FEB-2001
                  Klinman D,
                                                                                                                                                                                 12-APR-2000; 2000WO-US09839
                                                                                                                                                                                                                                                                                                                                              antiasthmatic; dermatological;
                                                                                                                                         12-APR-1999;
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                                                          KLINMAN D.
ISHII K.
VERTHELYI D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
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                  Ishii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                         99US-0128898
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                    Verthelyi D;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 20;
Pred. No. :
                                                                                                                                                                                                                                                                                                                                              phosphorothioate; ss
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  protozoal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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symptoms resulting from exposure to a bio-warfare agent
                                            Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating
                                                                                                                                                                                 WPI; 2001-006880/01.
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Claim 4; Page 35; 46pp; English.

cc acts on antigen-presenting cells (e.g., macrophages and dendritic cc cells), which then release cytokines, leading to activation of natural cc killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction cc (preferably asthma), or an infection, where an immunogenic CpG anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, cc infections which may be treated include viral, bacterial, fungal and cprotozoal infections such as tuberculosis, AIDS, leishmania and cc protozoal infections and the cc rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either calone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in cc antisense therapy and to improve the efficacy of a vaccine. The coligonucleotide is preferably administered to lymphocytes ex vivo, co from the invention.

The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention. invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the oligonucleotide delivery complex comprising an oligonucleotide of the The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long

Sequence 20 BP; 3 A; з С; 11 G; 3 T; 0 other;

밁 8 Matches Query Match Best Local ۳ 20; Similarity GGTGCATCGATGCAGGGGGG 20 Conservative 100.0%; 0; Score 20; Pred. No. 20 Mismatches 2 DB 22; 0 Length 20; Indels 0 0

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RESULT 13
ABK46460
ID ABK46
ABK46460
                                            ABK46460 standard; DNA; 20
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Immunostimulatory unmethylated CpG oligodideoxynucleotide #50.

05-JUN-2002

(first entry)

Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; unmethylated CpG; oligdideoxynucleotide; ODN; virucide; dysplasia; vaccine;

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RESULT 14
ABK46462
ID ABK46
  PA XXX PR XXX PA XXX PA
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the
                                                                                                                                                                                                                                                                                                                                                               unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
                                                    10-AUG-2000;
01-SEP-2000;
                                                                                                                                      09-AUG-2001; 2001WO-US41633
                                                                                                                                                                                                 14-FEB-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunostimulatory unmethylated CpG oligodideoxynucleotide #52.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABK46462 standard; DNA;
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(JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED
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of the vacc
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                                                    2000US-224011P.
2000US-229307P.
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Pred. No. 2;
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ABK46465
ID ABK4
RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vaccine for : epitopes of ! linked by pho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This
                                                  Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                         viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                     unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease;
                                                                                                                                                                                                 10-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                          09-AUG-2001; 2001WO-US41633
                                                                                                                                                                                                                                                                                                                              Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 4; Page 8; 30pp; English.
                         Claim 4; Page 8; 30pp; English.
                                                                                                              WPI; 2002-227118/28
                                                                                                                                         Mond JJ,
                                                                                                                                                                                                                                                                       14-FEB-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABK46465;
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                                                                                                                                                                      (JACK-)
                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunostimulatory unmethylated CpG oligodideoxynucleotide #55.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABK46465 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
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                                                                                                                                                                      JACKSON
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        represents an oligodideoxynucleotide that can be used in the of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or immunising patient against respiratory syncytial virus, has of Paramyxoviridae F protein, and cytosine followed by guanine phosphate bond-oligodideoxynucleotides -
                                                                                                                                        Prince G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Prince G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                               2000US-224011P.
2000US-229307P.
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                                                                                                                                                                      FOUND ADVANCEMENT MILITARY MED
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The invention describes a vaccine comprising one or more epitopes of

Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond) oligodideoxymucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory symoytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 other;

888888888888888 Query Match
100.0%; Score 20; DB 24; Length 20;
Best Local Similarity 100.0%; Pred. No. 2;
Matches 20; Conservative 0; Mismatches 0; Indels **0** Gaps 0;

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Search completed: January 20, 2004, 17:31:47 Job time : 124.706 secs

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Result
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Maximum Match 100%
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1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*

1: /cgn2_6/ptodata/1/pubpna/CT_NEW_PUB.seq:*

1: /cm2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
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/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
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     US-10-194-035-32

US-10-194-035-34

US-10-194-035-38

US-10-194-035-43

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US-10-068-160-54

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PUBCOMB.seq:*
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Sequence 32, Appl
Sequence 34, Appl
Sequence 38, Appl
Sequence 43, Appl
Sequence 72, Appl
Sequence 1, Appl
Sequence 54, Appl
Sequence 54, Appl
Sequence 53, Appl
Sequence 67, Appl
Sequence 68, Appl
Sequence 81, Appl
Sequence 81, Appl
Sequence 81, Appl
Sequence 81, Appl
Sequence 100, Appl
Sequence 101, Appl
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ALIGNMENTS

US-10-194-035-32

Sequence 32, Application No. US200 GENERAL INFORMATION:

Application US/10194035

US20030144229A1

PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 32
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
FEATURE: 밁 Ś ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-32 Matches Query Match Best Local 9 APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19 APPLICANT: APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES 1 GGTGCATCGATGCAGGGGGG 20 20; Similarity KLINMAN, Dennis ISHII, Conservative 100.0%; 0; Score 20; Pred. No. 20 Mismatches DB 13; STI 0; USE TO INDUCE AN IMMUNE RESPONSE Length 20 Indels 0 Gaps BY THE 0,

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LENGTH: 20
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                                                                     Matches
                                                                                    Query Match
Best Local Similarity
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
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CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE
FILE REFERENCE: 4239-63317
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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                                                                                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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LENGTH: 20
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                                                                                                                 ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-43
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SEQ ID NO 38
LENGTH: 20
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SEQ ID NO 43
LENGTH: 20
TYPE: DNA
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Best Local
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                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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CURRENT FILING DATE: 2002-07-12
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PRIOR FILING DATE: 2000-01-14
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PRIOR FILING DATE: 2001-07-19
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                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 119
                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: PCT/US01/01122
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                                                                                                                                                                       ORGANISM: Artificial Sequence
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100.0%; Pred. No. 2.
Live 0; Mismatches
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FILE REFERENCE: 4239-61999

CURRENT APPLICATION NUMBER: US/10/068,160

CURRENT FILING DATE: 2002-02-06

PRIOR APPLICATION NUMBER: 60/128,898

PRIOR FILING DATE: 1999-04-12

NUMBER OF SEQ ID NOS: 120

SOFTWARE: Patentin version 3.1

SEQ ID NO 1

LENGTH: 20
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Publication No.
                                                                                            Query Match
Best Local Similarity
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
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NUMBER OF SEQ ID NOS: 119
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CURRENT FILING DATE: 2002-07-12
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ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                                                                                      OTHER INFORMATION: Oligonucleotide
                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                               TYPE: DNA
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ITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
ILE REFERENCE: 4239-63317
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100.0%; Pred. No. 2.1;
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CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOPTWARE: Patentin version 3.1
SEQ ID NO 54
LENGTH: 20
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LENGTH: 19
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Publication No.
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR ETILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-61999
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                                                                                                                                                                                TYPE: DNA ORGANISM: Artificial Sequence
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US-10-194-035-40
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PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 40
TO TO THE PATENTIAL OF THE PATENTIAL OF
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 12429-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR PILING DATE: 2001-07-19
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CURRENT FILING DATE: 2002-07-12
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TYPE: DNA
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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ENGTH: 19
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PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEO ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEO ID NO 82
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US-10-194-035-82
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Best Local S
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SEQ ID NO 81
LENGTH: 20
TYPE: DNA
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TITLE OF INVENTION: OLIGODEXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
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                                                                                                                                                      TYPE: DNA ORGANISM: Artificial Sequence
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                                                                                                                              OTHER INFORMATION: Description of
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ITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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RESULT 14 US-10-194-035-100

Publication No.

Application US/10194035

US20030144229A1

GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES

BY THE

KLINMAN, Dennis

APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317

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US-10-194-035-101
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                                                                                                                      ; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-101
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 100
LENGTH: 20
TYPE
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                                                           Query Match
Best Local Similarity
Matches 19; Conserv
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
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GGTGCACCGATGCAGGGGGG 20
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Minimum DB
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score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No. Score Query Match Length DB AX352021 AX352040 AX352040 AX352117 AX352117 AX3511922 AX3511855 AX3511854 AX3511854 AX3511854 AX3511854 AX3511766 AX351785 AX104390 AX104555 AX105160 AX342347 AX3424257 AX34251738 AX351804 AX351804 AX351825 AX351826 AX351826 AX351826 AX351826 AX351827 AX351851 AX351851 AX351851 AX351851 AX351851 AX351853 AX3551853 AX3551853 AX3551853 AX3551853 AX3551853 AX3551853 ä AR096705 Sequence AR135049 Sequence AR140471 Sequence AR146307 Sequence AX351724 AX351854 AX351766 Description G01127 fruit fly Sequence Sequence

REFERENCE AUTHORS TITLE	VERSION KEYWORDS SOURCE ORGANISM	RESULT 1 G01127 LOCUS DEFINITION
Eukaryota; Metazoa; Arthropoda; Hexapoda; Ineecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila. 1 (bases 1 to 376) Rubin,G. Drosophila STS	G01127.1 GI:684531 STS; STS sequence; primer; sequence tagged site. Drosophila melanogaster (fruit fly) Drosophila melanogaster	376 bp DNA linear STS 28-FEB-1995 fruit fly STS Dm1823 clone DS02256 T7, sequence tagged site.

ALIGNMENTS

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                                                                                                    Immunomodulatory oligonucleotides
Patent: US 6008200-A 20 28-DEC-1999;
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PCR Profile:
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                                                                                                                         Krieg, A.M.
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/mol_type="genomic_DNA"
/db_xref="taxon:7227"
154. .305
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86 c 92 g
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tive 0; Mismatches 0;
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Krieg,A.M., Kline,J., Klinman,D. and Steinberg,A.D.
Immunostimulatory nucleic acid molecules
Patent: US 6207646-A 30 27-WAR-2001;
Location/Qualifiers
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Sequence 30 from patent US 6207646.
AR140471
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Krieg,A.M., Klinman,D. and Steinberg,A.D.
Immunomodulatory oligonucleotides
Patent: US 6194388-A 20 27-FEB-2001;
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Similarity 100.0%; Pred. No. 1.2e+03;
13; Conservative 0; Mismatches 0;
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GI:15109496
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Krieg, A.M. and Weiner, G.

Methods and products for stimulating the immune system immunotherapeutic oligonucleotides and cytokines

Patent: US 6218371_A 19 17-APR-2001;
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Krieg,A.M. and Kline,J.N.

Immunostimulatory nucleic acid molect

Patent: US 6239116-A 27 29-MAY-2001;
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                                                                                                          Unclassified.
1 (bases 1 to 20)
Davis,H.L., Schorr,J. and Krieg,A.M.
Use of nucleic acids containing unme
                                                                               Patent: US 6406705-A 16 18-JUN-2002;
Location/Qualifiers
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Unclassified
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Krieg, A.M. and Hartmann, G.
Immunostimulatory nucleic acid molecules
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Sequence 59 from Patent
AX105160
AX105160.1 GI:13921310
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/mol type="genomic DNA"
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Patent: WO 0122990-A 59 05-APR-2001;
Coley Pharmaceutical Group, Inc. (US)
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Patent: EP 1167377-A 20 02-JAN-2002;
THE UNIVERSITY OF IOWA RESEARCH FOUNDATION
Location/Qualifiers
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Methods related to immunostimulatory nucleic acid-induced
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Immunomodulatory oligonucleotides
Patent: EP 1167379-A 20 02-JAN-2002;
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Immunomodulatory oligonucleotides
Patent: EP 1167378-A 20 02-JAN-2002;
UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
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438.095 Million cell updates/sec
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Mouse B cell stimu	Immunostimulatory	B-cell stimulating Parasitic infectio	Nucleotide sequenc	IL-12 secretion in	Immunostimulatory	Description	

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AB1135236	ABL35114	ABL35237	ABL35300	ABL35489	ABL35414	ABL35395	ABL35378	ABX76005	ABX89817	ACA58670	ABL38880	ABL38879	ABL38750	ABL35506	ABL35279	ABL35256	ABL35235	ABL35234	ABL35233	ABL35232	ABL35211	ABL35210	ABL35209	ABL35190	ABL35126	AAL39172	ABS70530	ABS78263	ABS78110	ABS78098	AAH19280	AAD02980	AAF99547	AAF99457	AAF99445	AAF98786
Tumurioscimuracory	Immunostimulatory	Cancer medicament	Gastric ulcer trea	Immunostimulatory	Murine Toll-like r	$\boldsymbol{\vdash}$		Angiogenesis inhib	Angiogenesis inhib	CpG Oligonucleotid	Immunomodulatory.a	Immunostimulatory	Immunostimulatory		CpG immunostimulat																					

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	WPI; 1998-272127/24.	Kline JN, Krieg AM;	(IOWA) UNIV IOWA RES FOUND.	30-OCT-1996; 96US-0738652.	30-OCT-1997; 97WO-US19791.	07-MAY-1998.	WO9818810-A1.	Synthetic.		desensitisation therapy; artificial adjuvant; antibody generation; ss.	Th2; Th1; cytokine; treatment; prevention; asthma; autoimmune disease;	inmethylated Chr dimiclectide: activate: lymphocyte: immine response:	Temminostimulatory, Oligodeovyribonigleotide, ODN.	Immunostimulatory oligodeoxyribonucleotide 3Dg.		01-OCT-1998 (first entry)	AAV27695;		AAV27695 standard; DNA; 20 BP.	AAV27695/c	RESULT 1	

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RESULT 2
AAZ41874/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CpGs, X1 is adenine, guanine, or thymine, X2 is cycosine or thymine, N is any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2 does not contain a CCG tetramer or more than one CCG or CGG trimer CR 5' NXIX2CGX3X4N 3', where at least one nucleotide separates consecutive CpGs, X1 and X2 are selected from GpT, GpG, GpA, ApT and ApA, CX3 and X4 are selected from TPT or CpT, N is any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2 does not contain a CCGG tetramer or more than one CCG or CGG trimer.

The ODNs activate lymphocytes in a subject and redirect a subject's immune response from a Th2 to a Th1 (e.g. by inducing monocytic cells and other cells to produce Th1 cytokines, including II-12, IFN-gamma and CGM-CSF). The ODNs can be used to treat or prevent an asthmatic disorder, autoimmune diseases, in desensitisation therapy, as an artificial adjuvant during antibody generation in a mammal such as a mouse or a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                              CGG oligonucleotide; phosphorothioate; interleukin-12; II-12; secretion; human PBMC; immune response; cancer; hacterial disease; asthma; neoplastic disorder; jaaggiekte; B cell; NK cell; ss; cytokine; antigen presenting cell; infection; allergic disease:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV27641-751 represent immunostimulatory oligodeoxyribonucleotides (ODNs) of the invention. The ODNs contain at least one unmethylated Cg dinucleotide, and have the formula:

5' NIXICGX2N2 3', where at least one nucleotide separates consecutive.
                                                               Novel synergistic
                                                                                                                                                                                                   03-APR-1998;
                                                                                                                                                                                                                                                                                               WO9951259-A2.
                                                                                                                                                                                                                                                                                                                                 Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New immunostimulatory nucleic acid molecules - which contain at least one unmethylated CpG dinuclectide, used for treating e.g.
                                system
                                              and immunopotentiating
                                                                                                 WPI; 1999-620169/53.
                                                                                                                                                                  (IOWA ) UNIV IOWA RES FOUND
                                                                                                                                                                                                                                 02-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ41874;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAZ41874 standard; DNA; 20
                                                                                                                                                                                                                                                                14-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                               IL-12 secretion inducing CpG oligonucleotide 19.
                                                                                                                              AM, Weiner G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 27; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry
                                                                                                                                                                                                 98US-0080729
                                                                                                                                                                                                                                 99WO-US07335.
                                            combinations of immunostimulatory oligonucleotides ating cytokines are useful for stimulating the immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; 6 C; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81.2%;
100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 13;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 19;
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Example 8; Page 71; 91pp; English

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THE PROOF OF THE P
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AAZ60948/c
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CC response. The methods are useful for treating cancer by stimulating an
CC antigen specific immune response against a cancer antigen. The methods
CC can also be used to treat neoplastic disorders in humans, including but
CC not limited to: sarcoma, carcinoma, fibroma, Lymphoma, melanoma,
CC neuroblastoma, retinoblastoma, and glloma. The methods are also useful
CC for treating infectious diseases, e.g. viral diseases such as HIV,
CC bacterial diseases, and fungal diseases. The methods may also be used to
CC treat allergic diseases, e.g. asthma. The methods and compositions may
CC also be applied to treat cancer and tumours in non human subjects,
CC e.g. cats and dogs. Neoplasias affecting agricultural livestock may also
CC treated and include leukaemia, haemangiopericytoma and bovine ocular
CC neoplasia. Chronic, infectious, contagious diseases of sheep and goats
CC caused by the bacterium Corynebacterium pseudotuberculosis, and
CC cells, and antigen presenting cells, such as monocytes and macrophages.
CC cells, and antigen presenting cells, such as monocytes and macrophages.
CC contagious lung tumour of sheep caused by jaagsiekte may also be
CC cells, and antigen presenting cells, such as monocytes and macrophages.
CC contagious lunged to the contagious dependent cellular cytotoxicity and
CC can be used as an adjuvant in conjunction with tumour antigens to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunostimulatory; stereoisomer; CpG oligonucleotide; Th2; Th1; asthma allergic reaction; allergen; cancer antigen; cancer; immunoinhibitory; inflammatory disease; inflammatory bowel disease; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        response in a subject comprising administering to a subject exposed antigen, an immunopotentiating cytokine and an immunostimulatory Cpo oligonucleotide to induce a synergistic antigen specific immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequences AAZ41856-Z41949 are phosphorothicate CpG oligonuclectides which are used in the invention to induce interleukin-12 (IL-12) secretion from human PBMC. The invention comprises stimulating an immune
                             Immunostimulatory and immunoinhibitory stereoisomers of CpG oligonucleotides useful for immunotherapy of cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gingivitie;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleotide
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                                                                                                                                          WPI; 2000-195254/17.
                                                                                                                                                                                                            Krieg
                                                                                                                                                                                                                                                                                                                                                                                           27-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-JUL-1999;
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                                                                                                                                                                                                                                                                                 (IOWA ) UNIV IOWA RES FOUND.
(CPGI-) CPG IMMUNOPHARMACEUTICALS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200006588-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  psoriasis; sepsis; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of an immunostimulatory CpG oligonucleotide
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Pred. No. 1.8e+02;
0; Mismatches 0;
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RESULT 4
AAZ48853/c
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            with an antigen to induce an antigen-specific immune response. The immunostimulatory nucleic acids can also be used in methods for redirecting a subject's immune response from a Th2 to a Th1, for treating asthma, for desensitising a subject against the occurrence of an allergic reaction in response to contact with an allergen, for activating an immune cell, especially a lymphocyte or a dendritic cell expressing a cancer antigen or for treating cancer. The immunoinhibitory nucleic acid can be used to prevent an immune response, especially where the immune response in the subject is excessive due to having received an immune stimulating compound. The immunoinhibitory nucleic acid can be used to treat a subject having or at risk of an inflammatory disease, especially inflammatory bowel disease, autoimmune disease, gingivitis, nearise and sensite.
This sequence represents a B cell stimulatory oligonucleotide. The invention relates to compositions comprising an oligonucleotide (I) with unmethylated guanine and cytosine nucleotides and an antigen in a carrier. The oligonucleotides can be administered to a subject in a composition with an antigen in a carrier to enhance an immune response lenhancing B cell activation. The oligonucleotides are immunostimulatory and can be used to treat, prevent or ameliorate an immune system deficiency e.g. cancer or a viral, fungal, bacterial or parasitic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ60933-Z61015 represent immunostimulatory stereoisomers of CpG oligonucleotides. The sequences are derived from generic nucleic acid sequence, from which immunoinhibitory sequences may also be derived. The immunostimulatory nucleic acids can be co-administered with an antigen to induce an antigen-specific immune response. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                           Disclosure;
                                                                                                                                                                                                                                                                                                            Immunostimulatory oligonucleotides which enhance B cell activation useful for treating an immune system deficiency e.g. cancer -
                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-086224/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Krieg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-FEB-1995;
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                                                                                                                                                                                                                                                           Column 29; 19pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 10; 88pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immune response; B cell activation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oligonucleotide,
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Pred. No. 1.8e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer; vaccine;
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RESULT 5
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CC parasitic infection by administration of unmethylated CpG
CO oligonucleotides. The CpG oligonucleotides are able to stimulate the
CC innate immune system via the activation of immune cells, such as antigen
CC presenting cells, natural killer cells and gramulocytes. The CpG
CC oligonucleotides and the method can be used to treat and prevent
CC parasitic diseases, such as malaria, helminth diseases, tick and mites
CC in humans, animals and poultry. The oligonucleotides may be administered
CC in conjunction with parasiticides or other therapeutic compounds after
CC an organism has been diagnosed to be infected with parasites. Diseases
CC which can be treated or prevented include those caused by Plasmodium
CC falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babesia
CC microti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense,
CC schistosoma mansoni, Toxoplasma gondii, Trichinella spiralis, Leishmania
CC major, L. donovani, L. braziliensia, and L. tropica. The parasite is
CC especially capable of causing malaria. The present sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pigs, cows, goats, chickens, make and mountains should be useful for with the immunostimulatory oligonucleotides should be useful for increasing the responsiveness of malignant cells to subsequent chemotherapy. The 8-40 nucleotide size of the oligonucleotides facilitates uptake into cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                infection. They can also be administered as a vaccine adjuvant to stimulate the response of a host to a vaccine. The compositions can be used to treat humans or vertebrate animals including dogs, cats, sheep pigs, cows, goats, chickens, mice and monkeys. Preceding chemotherapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immune system; immunostimulatory; parasitic infection; parasi
CpG oligonucleotide; antigen presenting cell; natural killer
granulocyte; malaria; helminth disease; tick; mite; ss.
                                                                                                                                                                                                                                                                 The present invention describes a method for treating and preventing parasitic infection by administration of unmethylated CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ47618
                                                                                                                                                                                                                                                                                                                                                  Treating and preventing parasitic infections using CpG oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-062123/05
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Parasitic infection preventing
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(OTTA-) OTTAWA CIVIC LOEB R:
(USNA ) US SEC OF NAVY.
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                                                                                                                                                                                                                                                                                                                     Page 19;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0084512
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                                                                                                                                                                                                                                                                                                                                                                                                                          Davis HL,
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                            Hoffman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 21; I
1.8e+02;
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RESULT 6
AAZ47823/c
ID AAZ47823
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                                        CC (1) administering to a mucosal surface of a subject an ON, having a CC sequence including at least the formula (I); and (2) exposing the CC subject to an antigen to induce the MIR, where the antigen is not CC encoded in a nucleic acid vector: 5.XIX2CCX3X43 (I), where CC encoded in a nucleic acid vector: 5.XIX2CCX3X43 (I), where CC and G unmethylated, and X1, X2, X3 and X4 = nucleotides. The method CC can be used for treating a subject at risk of developing an allergic CC reaction, cancer or infectious disease. It can be used for treating a conjunctivitis, bronchial asthma, urticaria, food allergies or other CC conjunctivitis, bronchial asthma, urticaria, food allergies or other CC such as infectious bacteria, viruses, parasites or fungi. It can be used CC in humans or animals, e.g. bovine, equine, feline, swine, aquatic or CC avian species. The ONs act as potent mucosal adjuvants to induce immune CC administered to the mucosal insue. Both systemic and mucosal immunity CC are induced by mucosal adilvery of the ONs. AXA47801 to AXA47801 crepresent examples of immunostimulatory oligonucleotides given in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antigen; allergic reaction; cancer; infectious disease; asthma; allergic rhinitis; coryza; hay fever; conjunctivitis; bronchial urticaria; food allergy; atopic condition; mucosal delivery; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-MAR-2000
                                                                                                                                                                                                                                                                                                                      The present invention describes a method using CpG containing oligonuclectides (ONs) as adjuvants for inducing an immune response.
                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 24; 116pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-062585/05
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                                                                                                                                                                                                                                                                                                                                                                                                                      Use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McCluskie MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-MAY-1999;
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                                                                                                                                                                                                                                                                                                         The method for inducing a mucosal immune response (MIR)
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CPG IMMUNOPHARMACEUTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                              invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9 HEALTH RES INST AT OTTAWA HOSPITAL. IMMUNOPHARWACEUTICALS INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA;
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     The present invention describes a method using CpG containing CC oligonucleotides (ONs) for regulating immune system remodeling and for cregulating haematopoiesis. The method for inducing an antigen-specific cimmune response comprises (1) administering an ON having a sequence CC including at least the formula (I); and (2) exposing the subject to an class of the one includes at least 8 nucleotides; C and G = unmethylated, and CX produce an antigen-specific immune response: 5 x1CXX 3 (I), where CC produce an includes at least 8 nucleotides; C and G = unmethylated, and CX 1 and X2 = nucleotides. The method can be used for inducing an immune CC response against an antigen such as cells, cell extracts, proteins, CC polysaccharides, polysaccharide conjugates, lipids, glycolipids, CC polysaccharides, polysaccharide conjugates, lipids, glycolipids, CC anallergic reaction. It can also be used for treating an infectious CC an allergic reaction. It can also be used for treating an infectious CC which is drug-induced, due to an autoimmune disorder such as idiopathic creditation exposure. It can also be used for treating anaemia such as CC drug-induced anaemia, immunohaemolytic disorder such as idiopathic CC radiation exposure. It can also be used for treating anaemia such as CC drug-induced anaemia, immunohaemolytic disorder, genetic disorders such CC as haemoglobinopathy and inherited haemolytic anaemia, inadequate production despite adequate iron stores, chronic disease such as kidney failure, and chronic inflammatory disorder such as rheumatoid arthritis, CC or anaemia resulting from accidental or theraposure.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Haematopoiesis;
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IMMUNOPHARMACEUTICALS INC.
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C(II-6), interferon-gamma (IFN-gamma) or II-12, or for stimulating catural killer cell lytic activity. The methods comprise administering to the subject or exposing a natural killer cell to an immunostimulatory mucleic acid. Also described are: (1) inducing II-6 in a subject comprising administering to the subject to induce II-6 in the subject the immunostimulatory nucleic acid; (2) stimulating natural killer cell to the lytic activity comprising exposing a natural killer cell to the lytic activity; (3) inducing interferon-gamma in a subject to induce activity; (3) inducing interferon-gamma in a subject to treat an immune system deficiency comprising administering to the subject to induce (4) inducing II-12 in a subject to manufact to the subject the immunostimulatory nucleic acid. The methods are useful for inducing C(4) inducing II-12 in a subject to result killer cell (1)-6, interferon-gamma or II-12, or stimulating natural killer cell (2) Iytic activity in a subject, particularly a human. The methods are particularly useful for modulating an immune response. AAH50571 to CC AAH50671 represent oligonucleotide sequences used in the exemplification
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mouse B cell stimulatory oligonucleotide SEQ ID NO:27.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention describes methods for inducing interleukin 6 (IL-6), interferon-gamma (IFN-gamma) or IL-12, or for stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-OCT-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for inducing Il-6, interferon-gamma or Il-12, or stimulating killer cell lytic activity in a human, comprise administering subject or exposing a natural killer cell to immunostimulatory
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US DEPT HEALTH & HUMAN SERVICES.
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                                                                                                             The present invention describes an improvement to a method requiring the administration of interferon alpha (IFN-alpha), involving administering an immunostimulatory nucleic acid (ISNA). The sequences of a number of such nucleic acids are also provided. These may comprise oligonucleotides with phosphorothicate backbones, palindromes, or G-rich sequences. The sequences of the invention are useful in the treatment of proliferative diseases, such as cancers, and viral infections. The present sequence is
                                                                                                                                                                                                                      Improving the efficacy of treatments interferon-alpha by co-administering nucleic acid -
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Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic; immunostimulatory; tumour; viral infection; bacterial infection;
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                                                                                              Immunostimulatory
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99US-0156135.
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                                                                                                                           Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-pimmunostimulatory; tumour; viral infection; bacterial infection; fungal infection; parasitic infection; cancer; asthma; infectious disease; allergy; immune deficiency; phosphorothicate
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infectious disease; allergy; immune deficiency; phosphorothioate;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-SEP-1999;
27-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-SEP-2000; 2000WO-US26383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200122972-A2
                                              WO200122972-A2
                                                                                                                                                                                                                                        Immunostimulatory nucleic acid
                                                                                                                                                                                                                                                                                12-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                      AAF99547 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (COLE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (IOWA)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COLEY PHARM GMBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGAGCGTTCTC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Schetter C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; 99US-0156113.
; 99US-0156135.
; 2000US-0227436.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 A;
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                                                                                                                                                                                                                                                                                                                                                                      ВP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 13;
pred. No.
                                                                                                                                                                                                                                          #663.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 1.8e+02;
thes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 22;
                                                                                                                                  phosphorothicate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                  anti-parasitic;
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RESULT 13
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or immune deficiency. The present sequence can also be used to redirect a Th2 to a Th1 immune response and to activate immune cells.

Note: the present sequence may have a phosphorothicate backbone.
                                                                                                                                                                                           Oligodeoxyribonucleotide; ODN; cytosine-guanine dinucleotide; CpG; immunostimulatory; therapy; immune system deficiency; tumour; canc antibacterial; antiparasitic; fungicide; antiviral; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
                                                                                                                                                                                                                                                                                                                           AAD02980 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vaccinating against tumors, infectious diseases, allergies and asthma using immunostimulatory Py-rich and TG nucleic acids -
 mutation
                         mutation
                                                   mutation
                                                                           mutation
                                                                                                     mutation
                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                           31-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-273485/28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-AUG-2000;
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27-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-SEP-2000; 2000WO-US26383
                                                                                                                                                                    immunoinhibitory; immunoglobulin M;
                                                                                                                                                                                  .eukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
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                                                                                                                                                                                                                                                                                                                                                                                            CTGGAGCGTTCTC 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page
                                                                                                                                                                                  systemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Schetter C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 6 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                invention relates to a method for stimulating an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0227436
                                                                                                                                                                                                                                                                         (first entry)
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99US-0156135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          53; 338pp;
            replace
/*tag=
                                               replace
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replace
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                                                                                                                ocation/Qualifiers
                                                                                                                                                                                                                                               antisense oligodeoxyribonucleotide
                                                                                                                                                                                  lupus erythematosus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 C; 5 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
(16,
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                       (15,
                                                                                                    (10,
                                                (13, C)
                                                                          (11, G)
                                                                                                                                                                                                                                                                                                                             ВP
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Pred. No.
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                                                                                                                                                                    IgM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.8e+02;
                                                                                                                                                                    antisense; mutant; ss.
                                                                                                                                                                                 sepsis; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                               3Dg mutant
                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                          cancer;
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                                                                                                                                                                                                                                                                                                                                Matches
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                                                                                                                                                                                                                                                                                                                                                                                                         GCG trinucleotide sequences at or near both termini have antiviral activity. The present sequence is an immunomodulatory antisense oligodeoxyribonucleotide (ODN) 3Dg mutant. This is used to determine whether CpG or non-CpG ODNs causes B cell activation and immunoglobulin M (IgM) secretion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                having unmethylated CpG dinucleotides are useful for activating lymphocytes and for treating, preventing or ameliorating an immune system deficiency e.g. tumour or cancer or viral, fungal, bacterial or parasitic infection and leukaemia. Neural ODN that contains a methylated CpG dinucleotide are useful for treating diseases such as systemic lupus erythematosus, sepsis and autoinmune diseases. Immunoinhibitory ODN containing CpG dinucleotides that are not in the stimulatory motif and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to immunomodulatory oligodeoxyribonucleotides (ODNs) containing methylated or unmethylated cytosine-guanine (CpG) dinucleotides. Immunostimulatory ODN compositions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a subject, comprises antigen and immunostimulatory nucleic acid comprising oligonucleotides having unmethylated cytosine-guanine
                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 6 A; 6 C; 5 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Column 31-32; 20pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 dinucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mutation
                                                                             gene therapy; CpG; immune system deficiency; tumour; cancer; infection;
                                                                                                                     CpG Oligonucleotide #16 used to stimulate mouse B cells.
                                                                                                                                                13-JUL-2001
                                                                                                                                                                           AAH19280;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunostimulatory composition useful for stimulating immune response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-217934/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Krieg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-JUL-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mutation
                                                                leukaemia;
                                                                                          Immunostimulant; antiallergic; cytostatic; antiasthmatic; vaccine;
                                                                                                                                                                                                       AAH19280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IOWA ) UNIV IOWA RES FOUND (COLE-) COLEY PHARM GROUP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US6194388-B1
                                                                                                                                                                                                                                                                                                                                             POCGI
                                                                                                                                                                                                                                                                          13
                                                                                                                                                                                                                                                                                          4 CTGGAGCGTTCTC 16
                                                                                                                                                                                                                                                                                                                               13;
                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                          CTGGAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Klinman D,
                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94US-0276358
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                                                                                                                                                entry)
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(18,
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                                                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                             Score 13; DB 22;
Pred. No. 1.8e+0
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                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                            .8e+02;
                                                                                                                                                                                                                                                                                                                                                       Length 20;
                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                               Gaps
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US6207646-B1. Synthetic.

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RESULT 15
ABS78099/G
ID ABS78
XX ABS78
XX ABS78
XX ARS78
XX ARS76
XX ARS77
XX ARS77
XX ARS77
XX ARS76
XX ARS77

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                  tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis; diabetic retinopathy; retinopathy of prematurity; macular degeneration; corneal graft rejection; neovascular glaucoma; retrolental fibroplasia; rubeosis; Osler-Webber Syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Compositions comprising immunostimulatory molecules which comprise unmethylated CpG dinucleotides useful for ameliorating immune systa deficiency, treating leukemia and desensitizing subject against
                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   allergic
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(COLE-)
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                                                                                                                                                                                                                                                                                myocardial angiogenesis; plaque neovascularisation; telangiectasia;
haemophiliac joint; angiofibroma; wound granulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Angiogenesis inhibitory oligonucleotide #582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Columns 15-16; 55pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-FEB-1995;
15-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-MAR-2001.
                                                                                  WO200253141-A2
                                                                                                                                                                                                                                               intestinal adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABS78098
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94US-0276358.
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Search completed: January 20, 2004, 18:51:36 Job time: 100.588 secs

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Matches 13
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Also included is a kit comprising a first container housing the antiangiogenic nucleic acids, and instructions for administering them to a subject having a condition characterised by unwanted angiogenesis. The method is useful for inhibiting angiogenesis associated with solid tumour growth, tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis, diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, neovascular glaucoma, retrolental fibroplasia, rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque neovascularisation, telangiectasia, haemophiliac joints, angiofibroma, wound granulation, intestinal adhesions, atheroscleromis and hyperoferma and hyperother serve.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Inhibiting angiogenesis in a subject, involves administering at least
one antiangiogenic nucleic acid molecule to the subject -
                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 2; Page 29; 276pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-566690/60
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                                                                                                                                                                      atherosclerosis, scleroderma and hypertrophic scars. The present sequence is an antiangiogenic nucleic acid of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to inhibiting angiogenesis in a subject,
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3: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
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    GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
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US-09-197-787-308
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US-08-429-5820-189
PCT-US95-05600-189
PCT-US95-05600-189
PCT-US95-05600-189
US-09-1852-469-12
US-08-422-582-12
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Sequence 20, Appl Sequence 20, Appl Sequence 30, Appl Sequence 11, Appl Sequence 16, Appl Sequence 16, Appl Sequence 22, Appl Sequence 22, Appl Sequence 45, Appl Sequence 45, Appl Sequence 16, Appl Sequence 16, Appl Sequence 17, Appl Sequence 18, Appl Sequence 18, Appl Sequence 12, Appl Sequence 12, Appl Sequence 640, Appl Sequence 113, Appl Sequence 114, Appl Sequence 174, Appl Sequence 74, Appl Sequence 74, Appl Sequence 74, Appl Sequence 74, Appl Sequence 305, A
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RESULT 2

US-08-386-063-20/c

Sequence 20, Application US/08386063 Patent No. 6194388

GENERAL INFORMATION:

TITLE OF INVENTION:

Arthur M. Krieg, M.D.

IMMUNOMODULATORY OLIGONUCLEOTIDES

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CURRENT APPLICATION NUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION UNMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
EARLIER APPLICATION NUMBER: US 08/386,063
EARLIER FILING DATE: 1995-02-07
NUMBER OF SEQ ID NOS: 55
SOPTWARE: PastSEQ for Windows Version 3.0
SEQ ID NO 30
LENGTH: 20
LENGTH: 20
TYPE: DNA
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; Sequence 30, Application US/08738652B
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
TOWNSTRY: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                       APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
FILE REFERENCE: C1039/7004 HCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
ARME: ARNOLD, BETH E.
REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: UIZ-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEPHONE: (617)227-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (617)227-594
                                                 FEATURE:
OTHER INFORMATION: Synthetic oligonucleotide
                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCIL text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/386,063
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RESULT 4
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                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Krieg et al.,
TITLE OF INVENTION: IMMUN
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 27, Application US/08960774 Patent No. 6239116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 19
LENGTH: 20
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Patent No. 62183
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
ITILE OF INVENTION: Methods and Products for Stimulating
ITILE OF INVENTION: Immune System Using Immunotherapeutic
ITILE OF INVENTION: Cytckines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                        ZIP: 92037
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
              ATTORNEY/AGENT INFORMATION:
NAME: Haile, Lisa A.
                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No.
FILING DATE: October 30, 1996
CLASSIFICATION: 514
                                                                                                                                                                      SOFTWARE: ASCII text CURRENT APPLICATION DATA:
                                                                                                                 APPLICATION NUMBER: US/08/96 FILING DATE: 30-October-1997 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                STREET: 4225 E. CITY: La Jolla
                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 92037
REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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25 Executive Square, Suite 1400
                                                                                                                                                                                                                                            Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                        IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
                                                                                                                                                        US/08/960,774
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pred. No. 17;
mismatches
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                                                                                      6239116
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17;
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                                                                                      08/738,652
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APPLICANT: Schorr, Joachim
APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION: Use of Nucleic Acids Containing
TILLE OF INVENTION: Use of Nucleic Acids Containing
TILLE OF INVENTION NUMBER: US/09/325,193A
CURRENT FILLING DATE: 1999-06-03
PRIOR APPLICATION NUMBER: US/09/154,614
PRIOR FILING DATE: 1998-03-16
PRIOR FILING DATE: 1998-03-10
PRIOR APPLICATION NUMBER: US/09/040,376
PRIOR PRIOR DATE: 1997-03-10
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US-09-325-193A-16/c
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SEQUENCE CHARACTERISTICS:
LENGTH: 20 base pairs
TYPE: nucleic acid
STRANDEDNESS: Single
TOPOLOGY: linear
MOLECULE TYPE: DNA
                                                                                                                                                                             Sequence 19, Application US/09191170 Patent No. 6429199
GENERAL INFORMATION:
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Best Local (
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APPLICANT: Krieg, Arthur M.
APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
TITLE OF INVENTION: for Activating Dendritic Cells
FILE REFERENCE: C1039/7017
CURRENT APPLICATION NUMBER: US/09/191,170
CURRENT FILING DATE: 1998-11-13
EARLIER APPLICATION NUMBER: US 08/960,774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Synthetic Oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 20
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                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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RESULT 9
US-08-238-863-22
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; OTHER INFORMATION: synthetic oligonucleotide
US-09-191-170-19
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EARLIER APPLICATION NUMBER: US 08/738,652
EARLIER APPLICATION NUMBER: US 08/386,063
; EARLIER APPLICATION NUMBER: US 08/386,063
; EARLIER FILING DATE: 1995-02-07
; EARLIER APPLICATION NUMBER: US 08/276,358
; EARLIER APPLICATION NUMBER: US 08/276,358
; EARLIER FILING DATE: 1994-07-15
; NUMBER OF SEQ ID NOS: 99
                                                                                                                                                                                      Sequence 22, Application US/08238863 Patent No. 5503978
GENERAL INFORMATION:
APPLICANT: SCHNEIDER, D. J., GOLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 334
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 308
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Benson, Darin R.
APPLICANT: Lodes, Michael J.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR OVARIAN
TITLE OF INVENTION: CANCER THERAPY AND DIAGNOSIS
FILE REFERENCE: 210121.466C2
CURRENT APPLICATION NUMBER: US/09/397,787
CURRENT FILING DATE: 1999-09-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                             APPLICANT: SCHNEIDER, D. J., GOLD, L., AN TITLE OF INVENTION: HIGH-AFFINITY 66DNA L. TITLE OF INVENTION: REVERSE TRANSCRIPTASE
                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                          NUMBER OF SEQUENCES:
                                        STREET: 4582
STREET: #403
CITY: Denver
STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                      325 CTGGAGCGTTCTC 313
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Similarity 100.0%;
                                                              3: Beaton & Swanson, P.C.
4582 South Ulster Street Parkway, Suite
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100.0%; Pred. No.
100.0%; Pred. No.
                                                                                                                            94
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RESULT 10
US-08-238-863-45
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INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
FILING DATE: 1-JUNE-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: SCHNEII
                                                       CLASSIFICATION SYSTEM: MS-DOS SOFTWARE: WordPerfect 5.1 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/238,863 FILING DATE: 6-MAY-1994 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX17
TELECOMMUNICATION:
                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM compatible OPERATING SYSTEM: MS-DOS SOFTWARE: WordPerfect 5.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
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MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
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Local Similarity 100.0%; Pred. No.
hes 12; Conservative 0; Mismatch
                                                                                                                                                                                                                                                                                       AUDRESSEE: Beaton & Swanson, P.C.
STREET: 4582 South Ulster Street Parkway, Suite
STREET: #403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
TOPOLOGY: li
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APPLICATION NUMBER: 07/71 FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Barry J. Swanson REGISTRATION NUMBER: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE:
                                                                                                                                                                                                                                    COUNTRY:
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5. 5503978
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                                                                                                                                                                                                                                                           Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTCTGGAGCGT 30
                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                       SCHNEIDER, D. J., GOLD, L., AND FEIGON, J. VENTION: HIGH-AFFINITY 88DNA LIGANDS OF HIV-1
                                                                                                                                                             E: Diskette, 5.25 inch, 360 kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (303) 850-9900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              single
               07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5.25 inch, 360 kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1; Length 81; 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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US-08-443-407-22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 22, Appli
Patent No. 5786462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 75.0%;
Best Local Similarity 100.0%;
CLASSIFICATION: 435
PRIOR APPLICATION DATA;
APPLICATION NUMBER: 08/238,863
APPLICATION NUMBER: 07/714,131
PRIOR APPLICATION NUMBER: 07/714,131
PRIOR APPLICATION NUMBER: 07/536,428
PRIOR APPLICATION NUMBER: 07/536,428
PRIOR APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
PRIOR APPLICATION NUMBER: 07/964,624
PRIOR APPLICATION NUMBER: 07/964,624
PILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
NAME: BAITY J. SWANBON
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX17/C1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION: APPLICANT: SCHNEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (303) 850-9401
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 11-JUNE PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: BYCC
CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX17
TELECOMMUNICATION: 1NFORMATION:
                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
TOPOLOGY: lir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/443,407
                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/08443407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCHNEIDER, D. J., GOLD, L., AND F
VENTION: HIGH-AFFINITY 88DNA
VENTION: LIGANDS OF HIV-1 REVERSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                         IBM compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (303) 850-9900
                                                                                                                                                                                                                                                                                                                                                                                                                                            Diskette, 3.50 inch, 1.44 MB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
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                                                                                                                                                                                                                                                                                                                                                                                                          MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 12;
; Pred. No.
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US-08-443-407-45
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                                               US-08-443-407-45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No. 5786462
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (303) 793-3433
INFORMATION FOR SEQ ID NO:
                                                                                                                                    TELEFAX: (303) 793-3433
                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
FILING DATE: 11-JUNE-1990
                                                                                                                                                                                                                                                    APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 08/238,863
FILING DATE: 6-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                            STRANDEDNESS:
TOPOLOGY: li
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OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: NEX17/C1
                                                                                                                                                                                                                        NAME: Barry J. Swanson REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Englewood
STATE: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENGTH:
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12; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8011
                                                                                           nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTOTGGAGOGT 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E: Swanson & Bratschun, L.L.C.
8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCHNEIDER, D. J., GOLD, L., AND FEIGON, J. VENTION: HIGH-AFFINITY SEDNA
VENTION: LIGANDS OF HIV-1 REVERSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75.0%; Score 12; DB 1; ilarity 100.0%; Pred. No. 73; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IBM compatible
                                                              linear
                                                                                                                                                                                                                                                                                                                                                                10-JUNE-1991
                                                                             single
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSCRIPTASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/08/443,407
                                                                                                                                                                                                                    33,215
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3.50 inch,
 Score 12;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.44 MB
 DB 1;
73;
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              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
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RESULT 13
PCT-US95-05600-166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOPTWARE: WORDERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBERS
                                                                                                            FILING DATE: 17-AUGUST-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/964,624
FILING DATE: 21-OCTOBER-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/303,362
FILING DATE: 09-SEPTEMBER-1994
PRIOR APPLICATION NDATA:
APPLICATION NUMBER: 08/361,795
FILING DATE: 21-DECEMBER-1994
                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 06-MAY-1994
PRIOR APPLICATION UNDER: 08/248,632
PFILING DATE: 24-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/238,863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
MEDIUM TYPE: storage
COMPUTER: IBM compatibl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                             FILING DATE: 11-JUNE PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                             PILING DATE: 08-SEPTEMBER-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/931,473
                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: HI
                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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CITY: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: PCT/US95/05600 FILING DATE:
               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION
FILING DATE: 11-JUNE-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
ZIP: 80111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Englewood : Colorado
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application PC/TUS9505600
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SULLENGER, BRUCE A. DOUDNA, JENNIFER, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GOLD, LARRY
NIEUWLANDT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEIGON, JULI
ALLEN, PATRICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WECKER, MATTHEW SCHNEIDER, DANIEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IBM compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Swanson & Bratschun, L.L.C.
30 E. Prentice Avenue, Suite 200
                                                                                               11-JUNE-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HIGH-AFFINITY LIGANDS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INSULIIN RECEPTOR ANTIBODIES, TACHYKININ SUBSTANCE P, HIV INTEGRASE AND HIV-1 REVERSE TRANSCRIPTASE
               07/536,428
                                                                07/714,131
                                                                                                                                                                                                                                                              08/117,991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.5 inch, 1.44 MG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
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NEX17/PCT

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RESULT 14
PCT-US95-05600-189
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (303) 793-34
INFORMATION FOR SEQ ID NO:
                                            APPLICATION NUMBER: 08/361,799
FILING DATE: 21-DECEMBER-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/117,99:
                                                                                                                                                  CLASSIFICATION:
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                      APPLICATION NUMBER: 08/2:
FILING DATE: 06-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/2:
                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: MS-DOS
SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MG
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: SULLENGER, BRUCE A.
APPLICANT: DOUDNA, JENNIFER, A.
APPLICANT: DOUDNA, JENNIFER, A.
TITLE OF INVENTION: HIGH-AFFINITY LIGANDS OF
TITLE OF INVENTION: INSULIIN RECEPTOR ANTIBODIES, TACHYKININ SUBSTANCE
TITLE OF INVENTION: P, HIV INTEGRASE AND HIV-1 REVERSE TRANSCRIPTASE
NUMBER OF SEQUENCES: 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
                                                                                                                 PILING DATE: 09-SEPTEMBER-1994
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                           FILING DATE:
CLASSIFICATION:
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IOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: PCT/US95/05600
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1 Similarity 100.0%; Pred. No.
12; Conservative 0; Mismatc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Colorado
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8400 E. Prentice Avenue, Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
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SCHNEIDER, DANIEL J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEIGON, JULI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
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                                 08-SEPTEMBER-1993
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                                                                                                    08/361,795
                                                                                                                                                    08/303,362
                                                                                                                                                                                                                         08/248,632
                                                                                                                                                                                                                                                                         08/238,863
 07/931,473
                                                     08/117,991
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PCT-US95-08295-23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                          Matches
                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (303) 793-3433 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 11-JUNE PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: NE TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Barry J. Swanson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: BREAST SPECIFIC GENES AND PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 07/964,624 FILING DATE: 21-OCTOBER-1992
                                                                                                                                                            LENGTH: 490 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/US95/08295 FILING DATE: 30-JUN-1995
                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Barry J. Swans REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 07/536,428 FILING DATE: 11-JUNE-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 17-AUGUST-1992
                                                                                                                                                                                                                                        CLASSIFICATION:
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 129 ACTCTGGAGCGT 140
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                             ACTCTGGAGCGT 12
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                                                          Conservative
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                                                                                                                                 DNA (genomic)
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                                                                         Score 12; ; Pred. No.
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                                                             Mismatches
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Search completed: January 20, 2004, 20:03:12 Job time : 26.1765 secs

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Result
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Maximum DB
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                                                                                                                                                                                                                                                                                Score
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seq length: 500
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
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2 6/ptodata/1/pubpna/US09B PUBCOMB.seq:*
2 6/ptodata/1/pubpna/US09C PUBCOMB.seq:*
2 6/ptodata/1/pubpna/US09 NEW PUB.seq:*
2 6/ptodata/1/pubpna/US09 NEW PUB.seq:*
3 6/ptodata/1/pubpna/US10A PUBCOMB.seq:*
3 6/ptodata/1/pubpna/US10A PUBCOMB.seq:*
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| 6/ptodata/1/pubpna/US60 NEW PUB.seq:*
| 6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
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6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
       /ptodata/1/pubpna/US08_NEW_PUB.seq:*
/ptodata/1/pubpna/US08_PUBCOMB.seq:*
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                   US-09-824-468-19
US-09-800-266A-16
0 US-09-895-007A-16
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0 US-09-920-313-16
1 US-09-818-326-119
11 US-09-888-326-278
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Sequence 113, App
Sequence 73, App1
Sequence 19, App1
Sequence 16, App1
Sequence 16, App1
Sequence 16, App1
Sequence 20, App1
Sequence 27, App
Sequence 278, App
Sequence 278, App
Sequence 278, App
Sequence 597, App
Sequence 747, App
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US-10-044-090-624	US-10-010-742-183	US-09-910-689-183	US-09-778-320-183	US-09-923-876-6203	US-09-923-876-6203	US-10-029-386-24520	US-10-098-263B-124825	US-10-017-995-597	US-10-112-653-574	US-09-776-479-597	US-09-888-326-276	US-10-068-160-102	US-09-876-889-308	US-09-918-995-4250	US-09-918-995-6168	US-10-161-229-19	US-10-300-247-16	US-10-017-995-747	US-10-017-995-594	US-10-017-995-582	US-10-112-653-774	US-10-112-653-720	US-10-112-653-571	US-10-112-653-559	US-10-023-909A-16	US-10-306-522-27	US-10-265-072-59	US-10-187-264A-27	US-09-954-987B-47
624,	Sequence 183, App	Sequence 183, App	` >	Sequence 6203, Ap	6203,	2452	1248	597,	574,		276,		308, Ar	4250,	616	19, 2	16,	Sequence 747, App	594,		774,	720,	571	559,	16,	27,	59,	27,	Sequence 47, Appl

ALIGNMENTS

US-10-194-035-113

Sequence 113, Applic Publication No. US20 GENERAL INFORMATION:

Application US/10194035

US20030144229A1

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APPLICANT: VERTHELYI, Daniela
ITITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
ITITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
ITITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
ITITLE OF INVENTION NUMBER: US/10/194,035
CURRENT APPLICATION NUMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR PILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARR: PATENTIN Ver. 2.1
SEQ ID NO 113
LERGIH: 16
TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
PRIOR TIPODEMATION: Description of Artificial Security IN COLUMBER OF SECURITY IN COLUMBER OF SECURITY IN COLUMBER OF SECURITY IN COLUMBER OF ARTIFICIAL SECURITY IN COLUMBER OF ARTIFICATION OF ARTIFICIAL SECURITY IN COLUMBER OF ARTIFICATION OF ARTIFICIAL SECURITY IN COLUMBER OF ARTIFICATION 
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US-10-194-035-113
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Best Local S
Matches 16
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                                                                                            1 ACTCTGGAGCGTTCTC
                                                                                                                                                                                              l Similarity
16; Conserv
     ACTCTGGAGCGTTCTC
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ISHII, Ken
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Pred. No. 2.4
0; Mismatches
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RESULT

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US-09-800-266A-16/c; Sequence 16, Application US/09800266A; Patent No. US20020156033A1; GENERAL INFORMATION:
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US-09-824-468-19/c
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                                                                                 RESULT 4
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic OJ
TITLE OF INVENTION: Cytokines
TITLE OF INVENTION: Cytokines
TITLE OF INVENTION: Cytokines
TITLE OF INVENTION: Cytokines
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Best Local
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SEQ ID NO 73

LENGTH: 16
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 12.39-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/824,468
CURRENT FILING DATE: 2001-04-02
PRIOR APPLICATION NUMBER: 09/286,098
PRIOR FILING DATE: 1999-04-02
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                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: Oligonucleotide
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100.0%; Pred. No. 1.
tive 0; Mismatches
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US-09-920-313-16/c
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Sequence 16, Application US/09920313

Publication No. US20020198165A1

GENERAL INFORMATION:

APPLICANT: Bratzler, Robert L.

APPLICANT: Petersen, Deanna M.

TITLE OF INVENTION: Nucleic Acids for the Prevention
TITLE OF INVENTION: Treatment of Gastric Ulcers

FILE REFERENCE: C1037/7019 (HCL/MAT)
                                                                                                                                                                                                                                                                                                                                  Matches
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Best Local
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LENGTH: 20
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Best Local Similarity
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SOFTWARE: FRAUSEQ for Windows Version 3.0
SEQ ID NO 16
LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: IMMINOSTIMULATORY NUCLEIC ACIDS FOR THE TITLE OF INVENTION: TREATMENT OF ANEMIA, THROMBOCYTOPENIA, FILE REFERENCE: C1041/7014 (AWS)
CURRENT APPLICATION NUMBER: US/09/895,007A
CURRENT FILING DATE: 2001-06-28
BRIOR APPLICATION NUMBER: US 60/214,368
BRIOR APPLICATION NUMBER: US 60/214,368
BRIOR FILING DATE: 2000-66-28
NUMBER OF SEQ ID NOS: 133
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Schetter, Christian
APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
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APPLICANT: Petersen, Deanna M.
APPLICANT: Petersen, Deanna M.
TITLE OF INVENTION: Immunostimulatory Nucleic Acids and
TITLE OF INVENTION: Cancer Medicament Combination Therapy for the Treatment of
TITLE OF INVENTION: Cancer Medicament Combination Therapy for the Treatment of
TITLE REFERENCE: C1037/7017(HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/800,266A
CURRENT FILING DATE: 2001-03-05
PRIOR APPLICATION NUMBER: US 60/187,214
PRIOR FILING DATE: 2000-03-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE: OTHER INFORMATION: Synthetic Sequence
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13; Conservative
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100.0%; Fr
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Pred. No.
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hes 0;
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                                                                                                                                                                                                                                                                                            RESULT 8
US-09-888-326-119/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 27
SOFTWARE: FESTSEQ for Windows Version 3.0
SEQ ID NO 20
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FESTURE:
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Publication No. US20030026782A1
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 16
LENGTH: 20
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                                                                                                                                                                                                                                                     Sequence 119, Application US/09888326 Publication No. US20030026801A1
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                                          APPLICANT: Weiner, George
APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Steinberg, Alfred D.
TITLE OF INVENTION: IMMUNOMODULATORY OLIGONUCLEOTIDES
FILE REFERENCE: C1039/7029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 08/386,063 PRIOR FILING DATE: 1995-02-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Krieg, Arthur M. APPLICANT: Klinman, Dennis APPLICANT: Steinberg, Alfr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 60/222,248 PRIOR FILING DATE: 2001-08-08
SOFTWARE: FastSEQ for Windows Version 3.0 SOFTWARE: FastSEQ for Windows Version 3.0
                                  NUMBER OF SEQ ID NOS: 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/415,142
CURRENT FILING DATE: 1999-10-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/920,313
CURRENT FILING DATE: 2001-08-01
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100.0%; Pred. No. 1.6e+02;
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Pred. No. 1.6e+02;
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US-09-888-326-277/c
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                                                                                                                                                    Sequence 278, Application US/09888326 Publication No. US20030026801A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 277
LENGTH: 20
TYPE: DNA
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Best Local Similarity
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APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2000-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS:
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OTHER INFORMATION: Synthetic oligonucleotide

NAME/KEY: misc_feature

LOCATION: (0)...(0)

OTHER INFORMATION: phosphodiester backbone
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b. US20030026801A1
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Pred. No.
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1.6e+02;
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1.6e+02;
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SEQ ID NO 30
LENGTH: 20
TYPE: DNA
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                                                                                                                                                                      Sequence 20, Application US/09931583 Publication No. US20030050263A1 GENERAL INFORMATION:
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Best Local Similarity
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APPLICANT: Steinberg, Alfred D.
APPLICANT: Steinberg, Alfred D.
TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
FILE REFERENCE: C1039/7048 (AWS)
CURRENT APPLICATION NUMBER: US/09/818,918
CURRENT FILING DATE: 2001-03-27
PRIOR APPLICATION NUMBER: US 08/276,358
PRIOR APPLICATION NUMBER: US 08/276,358
PRIOR APPLICATION NUMBER: US 08/386,063
PRIOR APPLICATION NUMBER: US 08/386,063
PRIOR APPLICATION NUMBER: US 08/738,652
PRIOR APPLICATION NUMBER: US 08/738,652
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                   APPLICANT: Steinberg, Alfred
TITLE OF INVENTION: Methods and Products for Treating HIV Infection
FILE REFERENCE: C1039/7053 (HCL)
CURRENT APPLICATION NUMBER: US/09/931,583
CURRENT FILING DATE: 2001-08-16
                                                                                                                              APPLICANT: Krieg, Arthur APPLICANT: Klinman, Dennis
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CURRENT FILING DATE: 2001-08-16
PRIOR APPLICATION NUMBER: US 08/276,358
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100.0%; Pred. No. 1.6e+02;
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100.0%; Pred. No.
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IENGTH: 20
TYPE: DNA
CORCANISM: Artificial Sequence
FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Synthetic Oligonucleotide
US-09-931-583-20
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; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-582
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PRIOR FILING DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 582
LENCTU ...
                                                                                                                                                                                                                                         Sequence 594, Application US/09776479 Publication No. US20030087848A1 GENERAL INFORMATION:
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Best Local Similarity 100.0%; l
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            APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
APPLICANT: Petersen, Deanna M.
APPLICANT: Pouron, Yves
ITILE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
NUMBER OF SEQ ID NOS: 1093
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APPLICANT: Petersen, Deanna M.
APPLICANT: Fouron, Yves
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
CURRENT FILING DATE: 102-02
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SOFTWARE: PatentIn version 3.0
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TYPE: DNA
ORGANISM: Artificial Sequence
OFTWARE: FastSEQ for Windows Version 3.0
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APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
APPLICANT: Petersen, Deanna M.
APPLICANT: Pouron, Yves
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR FILING DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 747
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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US-09-776-479-747/c
US-09-776-479-747/c
; Sequence 747, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-594
Search completed: January 20, 2004, 20:51:03 Job time : 107.353 secs
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; OTHER INFORMATION: Synthetic Sequence US-09-776-479-747
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LENGTH: 20
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NAME/KEY: misc_feature
LOCATION: (1)...(3)
OTHER_INFORMATION: Conjugated to biotin moiety.
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seq length: 500
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FEATURES Email: suchytas@msu.edu Single Pass sequencing. Bases called and alt-trimmed with phred v0.0204425.c. Vector identified by cross_match with the -minscore Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Butheria; Cetartiodactyla; Suina; Suidae; 1 (bases 1 to 199) Center for Animal Functional Genomics. Generation of ESTs from mixed pig cDNA libraries CA778499 199 bp mRNA linear EST 03-DEC-20 MPL384 9 H02 MPL Sus scrofa cDNA clone pSPORT1 5', mRNA sequence. CA778499 v0.0204425.c. Vector ide 20 -minmatch 12 options. Seq primer: T7. B215 Anthony Hall, East Lansing, Tel: 517 355 8443 Fax: 517 432 9168 Contact: Steven P. Suchyta
Center for Animal Functional Genomics, Department of Animal Science
Michigan State University Sus scrofa (pig) Sus scrofa Unpublished CA778499.1 Location/Qualifiers GI:26016374 ĭ 48824, USA Euteleostomi; Sus. EST 03-DEC-2002

ALIGNMENTS

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RESULT 2
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15; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A1401438 A28 bp mRNA linear EST 30-MAR-1999
tg64a08.xl Soareg_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:2113526
3', mRNA secuence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     High quality sequence stop: 420.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seq primer: -40UP from Gibco
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ilarity 100.0%;
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                  /tissue_type="Pooled human melanocyte, fetal heart, and pregnant uterus"

/lab_host="DH108"

/lab_host="DH108"

/clone_lib="Soares NhHMPu_S1"

/clone_lib="Soares nixed (see below); Vector: pT7T3D-Pac.
/note="Organ: mixed (see below); Vector: pT7T3D-Pac.
/note="Organ: mixed (see below); Vector: pT7T3D-Pac.
/note="Organ: mixed (see below); Vector: pT7T3D-Pac.
/pharmacia) with a modified polylinker; Site_1: Not I;
/pharmacia, with a modified polylinker;
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/mol_type="mRNA"
/db_xref="taxon:9823"
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/clone_lib="MPL"
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/dev_stage="pooled"
                                                                                                                                                                                                                                                                                                                                                               organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
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Use of BAC End Sequences from CalTech Libraries for Sequence-Ready
Map Building
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              genomic survey sequence. AQ472178
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   end search page:
http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html.
Seq_primer: M13 Reverse
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 445)
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CITBI-E1-2589E3.TR CITBI-E1 Homo sapiens genomic clone 2589E3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: hbe@tigr.org
Clones are available from Research Genetics (info@resgen.com). BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Shaying Zhao, William Nierman, Mark Adams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhao, S., Adams, M.D., Nierman, W., Malek, J., Shizuya, H., Simon, M. and
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301 838 0208
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                                                                                                                                                                                                                                                                                                                                                   /cell_type="sperm"
/clone lib="CITBI-E1"
/clone lib="CITBI-E1"
/note="Vector: pBeloBAC11; Site_1: EcoRI;
CalTech Human BAC Library D"
B3 c 118 g 107 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/clone="2589E3"
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100.0%; Pred. No.
tive 0; Mismatcl
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Mahairas,G.G., Wallace,J.C., Smith,K., Swartzell,S., Holzman,T.,
Keller,A., Shaker,R., Furlong,J., Young,J., Zhao,S., Adams,M.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clones are derived from the human BAC library RPCI-11. For BAC library availability, please contact Pieter de Jong (pieter@dejong.med.buffalo.edu). Clones may be purchased from BACPAC Resources (http://bacpac.med.buffalo.edu/ordering_bac.htm) or from Resear h Genetics (info@resgen.com). BAC end Web Server:
                                                         Strongylocentrotus purpuratus
Eukaryota; Metazoa; Echinodermata; Eleutherozoa;
Echinoidea; Euechinoidea; Echinacea; Echinoida;
                                                                                                                                            SSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Mahairas GG, Wallace JC, Hood L
High Throughput Sequencing Center
University of Washington
401 Queen Anne Ayenue North, Seattle, WA 98109,
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GSS.
Cameron, R.A., Mahairas, G., Rast, J.P., Martinez, P., Biondi, T.R.,
                   Strongylocentrotidae; Strongylocentrotus.
1 (bases 1 to 495)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             http://www.htsc.washington.edu
Plate: 885 row: B column: 23
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                  Strongylocentrotus purpuratus
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Location/Qualifiers
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(206) 616-3887
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/mol_type="genomic DNA"
/db_xref="taxon:9606"
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                                                                                                                                            Otsuka GEN Research Institute Otsuka Pharmaceutical Co.,Ltd 463-10 kagasuno Kawauchi-cho, Tel: 0886-65-2888
                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases 1 to 322)

Fujiwara, T., Hirano, H., Katagiri, T., Kawai, A., Kuga, Y., Nagata, M., Okuno, S., Ozaki, K., Shimizu, F., Shimada, Y., Shinomiya, H., Takaichi, A., Takeda, S., Watanabe, T., Takahashi, E., Hirai, Y., Maekawa, H., Shin, S. and Nakamura, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D59115 322 bp mRNA line HUM522B03B Clontech human placenta polyA+ mRNA cDNA clone GEN-522B03 5', mRNA sequence.
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                                                                                                                                                                                                                                     Fujiwara et al. (1995)
Unpublished
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                                                                                                                                                                                                                    Contact: Tsutomu Fujiwara
                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                           D59115.1 GI:968749
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Class: BAC ends
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Proc. Natl. Acad. Sci. U.S.A. 97 (17), 9514-9518 (2000)
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Location/Qualifiers
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(626) 793-3047
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/organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="GN-522B03"
/clone_lib="Clontech human placenta polyA+ mRNA (#6518)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone lib="Strongylocentrotus purpuratus, purple sea
urchin, sperm genomic BAC library"
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                                                                                                         Location/Qualifiers
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/db_xref="taxon:7668"
/clone="Plate=45 Col=7 Row=E"
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RNA (#6518) Homo sapiens
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BF811540/c
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                                                                                                                                                                                                                                                                                                                                                                                  Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?t1=CM2&t2=CM2-CI0179-
201100-537-al0&t3=2000-11-20&t4=1)
Seq primer: puc 18 forward
High quality secmence
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Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Soldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare
M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                  N
                                                  14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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CTCTGGAGCGTTCT 15
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                                              87.5%; Score 14; DB 10; larity 100.0%; Pred. No. 2.4e+02; Conservative 0; Mismatches 0;
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                                                                                                                                മ
                                                                                                                             /note="Organ: colon_ins; Vector: puc18; Site_1: SmaI; Site_2: SmaI, A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                          /mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                           organism="Homo sapiens"
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) CI0179 Homo sapiens cDNA,
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2.4e+02;
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Shoemaker,R., Keim,P., Vodkin,L., Erpelding,J., Coryell,V., Khanna,A., Bolla,B., Marra,M., Hillier,L., Kucaba,T., Martin,J., Beck,C. Wylie,T., Underwood,K., Steptoe,M., Theising,B., Allen,M., Bowers,Y., Person,B., Swaller,T., Gibbons,M., Pape,D., Harvey,N., Schurk,R., Ritter,E., Kohn,S., Shin,T., Jackson,Y., Cardenas,M., McCann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: est@watson.wustl.edu
This clone is available through: ResGen, Invitrogen Corp.
South Memorial Parkway Huntsville, AL 35801 For further in
call: (800)-533-4363 or contact via email: ccu@resgen.com
Insert Length: 748 Std Error: 0.00
High quality sequence stop: 353.
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Public Soybean EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
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Public Soybean EST Project
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Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids
; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tel: 314 286 1800
Fax: 314 286 1810
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CTCTGGAGCGTTCT
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                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                        / CALUAR THE CONT. SHE 18 CORI; Site 2: /notes were close still sky; Site 1: EcoRI; Site 2: /notes were constructed from mRNA isolated from etiolated hypocotyl tissue of 9-10 day old seedlings of the cultivar williams 82. Complementary DNA was synthesized from mRNA using a primer consisting of a poly(dT) primer with a XhoI restriction site. EcoRI adapters were ligated to the blunt-ended cDNA fragments followed by digestion with EcoRI and XhoI. The cDNA fragments were directionally cloned into the EcoRI-XhoI restriction site of the pBluescript vector. The ligated cDNA fragments were transformed into DH10B host cells (Gibco BRL). This library was constructed by Dr. Randy Shoemaker." 91 92 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="Hypocotyl,
/lab_host="DH10B"
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/db_xref="taxon:3847"
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issue_type="Hypocotyl, 9-10 day old etiolated seedlings"
                                                                                                                                                                87.5%;
254
                                                                                                                                 s; Pred. No. 2.4
0; Mismatches
                                                                                                                                                                DB 10; I
2.4e+02;
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                EST.

Mus musculus (house mouse)

Mus musculus

Eukaryota; Metazoa; Chordata;

Mammalia; Eutheria; Rodentia;
                                                                                                                                                                     BE652060
UI.M-AOO-aby-a-09-0-UI.rl NIH EM
UI.M-AOO-aby-a-09-0-UI 5', mRNA
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large-scale partial sequencing of anonymous Arabidopsis cDNA clones
Plant Physiol. 106, 1241-1255 (1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      i (bases 1 to 386)
Newman, T., deBruijn, F.J., Green, P., Keegstra, K., Kende, H., L., Ohlrogge, J., Raikhel, N., Somerville, S., Thomashow, M., E. and Somerville, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arabidopsis thaliana (thale cress)
Arabidopsis thaliana
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MSU-DOE-PRL, Michigan State University, Plant Biology Bldg., E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Thomas Newman
MSU-DOE Plant Research Laboratory
Michigan State University
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43 Lambda-PRL1 Arabidopsis thaliana
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(bases 1 to
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone lib="Lambda-PRL1"
//note="Vector: Lambda Shlox-1; Site 1: EcoRI; Site 2:
//note="Vector: Lambda PRL1 is a cDNA library derived from equal findIII; Lambda PRL1 is a cDNA library derived from equal quantities of 4 pools of mRNA. The mRNA sources were 1) 7 day germinated etiolated seedlings; 2) tissue culture grown roots; 3) staged plants half with 24 hour light cycle, half on 16 hr light, 8 hour dark- rosettes; 4) same plants as 3 but aerial tissue (stems, flowers and siliques. The library was made in Novagen's Lambda Shlox-1 with (oligo dr primed) directional inserts cloned between the EcoRI and HindIII sites. "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22313tcn@ibm.cl.msu.edu.
Location/Qualifiers
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/mol_type="mRNA"

/strain="var columbia"
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                                                                                                                                                                                                                                                                                                                                                                                                                              Score 14; DB 14; Length 386; pred. No. 2.5e+02; 0; Mismatches 0; Indels
                                                                                                                                                                   407 bp mRNA linear INTH BMAP MPG Mus musculus, mRNA sequence.
                  Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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a cDNA clone SCF10T7P, mRNA
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Retzel
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                                                                                                                                                                                                                                                                                     AW414260
uo96c11.y1 NCI_CGAP_Mam3
similar to gb:L19953 Mus
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Ch
cDNA Library Preparation: Life Technologies, Inc
                                                 Unpublished Contact: Robert Strausberg, Ph.D.
                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus 1 (Dases 1 to 411)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                   Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Chin, H
Contact: Chin, H
National Institute of Mental Health
National Institute Blvd. Room 7N-7190, MSC
                                                                                                                                                                                                                                                       mRNA sequence.
AW414260
                                                                                                                                                                                                                                       AW414260.1 GI:6940505
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20892-9643, USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: mEST@mail.nih.gov
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301 443 9890
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/clone="UI-M-AOO-aby-a-09-0-UI"
/dev_stage="27-32 days"
/lab_host="DH10B (Life Technologies)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
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0; Mismatches
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2.5e+02;
hes 0;
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                 Chu-Xia Deng
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                               Tel: 801 585 5606

Fax: 801 585 7177

Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.0

Plate: 0161 row: I column: 09

Seq primer: CACACAGGAAACAGCTATGACC
Class: plasmid ends
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                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 422)
Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D.,Weiss,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AZ857020 422 bp DNA linear GSS 21-FEB-200 2M0161I09R Mouse 10kb plasmid UUGCIM library Mus musculus genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-GAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: www-bio.llnl.gov/bbrp/image/image.html
                                                                                                                                                                                            Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
                                                                                                                                                                                                                                                                  Mouse whole genome scaffolding with paired end reads from 10kb plasmid inserts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    clone UUGC2M0161I09 R, genomic survey sequence.
                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
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quality sequence stop: 422.
Location/Qualifiers
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/lab_host="DH10B"
/clone lit """"
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Location/Qualifiers
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|db_xref="taxon:10090"
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                                                                                                                                                                                                                                                                                        Shoemaker, R., Keim, P., Vodkin, L., Erpelding, J., Coryell, V., Khanna, A., Bolla, B., Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C. Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurl, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R. and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14;
Email: est@watson.wustl.edu
This clone is available through: ResGen, Invitrogen Corp. 2130
South Memorial Parkway Huntsville, AL 35801 For further information
call: (800)-533-4363 or contact: ccu@resgen.com web site:
                                                                                                                                                     Contact: Shoemaker R/Public Soybean EST Project
Public Soybean EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sav38f12.y1 Gm-c1069 Glycine max cDNA clone
Gm-c1069-5639 5', mRNA sequence.
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                                                                                                      314 286 1800
314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnares/). The DNA
(http://www.jax.org/resources/documents/dnares/). The DNA
was hydrodynamically sheared by repeated passage through a
0.005 inch orifice at constant velocity. The sheared DNA
was blunt end-repaired with T4 DNA polymerase and T4
polymucleotide kinase. Adaptor oligonucleotides were
ligated to the blunt ends in high molar excess. The
adaptored DNA was purified and size-selected for a 9.5 to
10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pWD42 (gi|4732114|gb|AF129072.1), a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adaptored mouse DNA was annealed to
adaptored vector DNA, and transformed into
chemically-competent E. coli X110-Gold (Stratagene) cells
and selected for ampicillin resistance."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="genomic DNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
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Pred. No. 2.5e+02;
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                                                                                                                                                                   St. Louis, MO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Molecular Markers Group, Department Genbank
Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensstr. 3, 06466, Gatersleben, Germany
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 435)
Radchuk, V., Zhang, H., Weschke, W.,
Barley ESTs from developing seeds
                                                                                                                                                                                                                                                                                                                            Email: stein@ipk-gatersleben.de
Insert Length: 435 Std Error: 0.00
Plate: 26 row: A column: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Corrensstr. 3, 06466, Gatersleben, Tel: 039482-5522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
Contact: Stein Nils
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Hordeum vulgare subsp. vulgare
Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
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BU973804.1 GI:24224597
EST.
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                                                                                                                                                                                                                                                                                                Seq primer: Ml3rev.
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//Clone lib="Gm-Cl069"
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etiolated seedling"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          library was constructed in the laboratory
                                                                                                                                                                                                                              1. .435
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/clone="SOYBEAN CLONE ID: Gm-c1069-5639"
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tissue_type="developing caryopsis"
                                                                                                                                /mol_type="mRNA"
/cultivar="barke"
                                                                                                                                                                                                  organism="Hordeum vulgare subsp. vulgare"
                                                                                                                                                                                                                                                             location/Qualifiers
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|mol_type="mRNA"
                                  'db_xref="taxon:112509"
'clone="HB26A09"
                                                                                             db_xref="GABI:238650"
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Pred. No. 2.6e+02;
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Hordeum vulgare subsp. vulgare
Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
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Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensetr. 3, 06466, Gatersleben, Germany
Tel: 039482-5522
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BQ467058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: stein@ipk-gatersleben.de
Insert Length: 442 Std Error:
Plate: 2 row: H column: 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished
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/lab_host="XL10-Gold"
/clone_lib="BC"
/clone_rib="Vector: pBluescript SK+; Site_1: EcoRI (5'-end of /note="Vector: pBluescript SK+; Site_1: EcoRI (5'-end of cDNA); Site_2: XhoI (3'-end of cDNA); developing caryopsis, 8-15 DAP (days after pollination) Due to a cloning artefact caused by the kit, in most cases the EcoRI site is NOT present, as well as the EcoRIadapter used for cloning. To excise the insert, restriction sites upstream EcoRI should be used (e.g. BamHI, SaII, PstI). NOTE: Also due to the cloning system used Blue/white selection for recombinats is not 100% reliable."
/GLORE lib="HS"
//GLORE lib="HS"
//GLORE lib="NGS"
//GLORE lib="NG
                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="embryo + scutellum"
/dev_stage="0-16 hours after imbibition"
/lab_host="XIII0-Gold"
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/cultivar="barke"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              128 g
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2.6e+02;
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Search completed: January 20, 2004, 20:01:29 Job time : 988.412 secs	QY 3 TCTGGAGCGTTCTC 16	Query Match 87.5%; Score 14; DB 13; Length 442; Best Local Similarity 100.0%; Pred. No. 2.6e+02; Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No. Score Query Match 300400 310020 325651 16 16 16 17 17 17 17 18 18 18 18 18 18 2658 101715 110000 197252 199450 207184 215789 234627 235139 171351 172305 176146 110992 128789 143779 Length 벎 MMNETRN ATF4D11 AX465364 AX104532 AX428867 AX429521 **ATCYC3B** AC119639 诘 AX352258 AP004750 Oryza sat AC119218 Mus muscu AC119218 Mats muscu AC119218 Homo sapi AL161581 Arabidops AC005674 Homo sapi AC012361 Homo sapi AC012361 Homo sapi AC103149 Rattus no AC132315 Mus muscu AC132316 Mus muscu AC132316 Rattus no AC126818 Rattus no AC127720 Reduence AE016861 Pseudomon AC127720 Reduence AE016861 Pseudomon AC127720 Reduence AE016861 Pseudomon AC127720 Reduence AE016861 Pseudomon AC127720 Reduence AE016861 Sequence AL360314 Arabidops AC113911 Rattus no Z32815 M.musculus AL022537 Arabidops Continuation (2 of AX428867 Sequence AX429521 Sequence Z31402 A.thaliana AX123430 Sequence BD165547 Novel po Description Sequence Sequence Sequence

TITLE	AUTHORS	REFERENCE			ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	AX123430/c	RESULT 1
Yokoi,H., Tateishi,N., Senoh,A., Ikeda,M. and Ozaki,A. Novel polynucleotides	Nakagawa, S., Mizoguchi, H., Ando, S., Hayashi, M., Ochiai, K.,		Corynebacterineae; Corynebacteriaceae; Corynebacterium.	Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;	Corynebacterium glutamicum	Corynebacterium glutamicum		AX123430.1 GI:14040918	AX123430	Sequence 3346 from Patent EP1108790.	AX123430 1125 bp DNA linear PAT 11-MAY-2001		

ALIGNMENTS

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BASE COUNT
ORIGIN
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AUTHORS
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ORGANISM
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JOURNAL
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                                                 Matches
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KYOWA HAKKO KOGYO CO LTD

COTYNEBACTETIUM Glutamicum
PN JP 2002191370-A/3346

PD 09-JUL-2002
PF 15-DEC-2000 JP 2000405096
PF SATOSHI NAKAGAWA, HIROSHI MIZOGUCHI, SEIK
PI KEIKO OCHIAI,
PI HARUHIKO YOKOI, NAOKO TATEISHI, AKIHIRO S
PI OZAKI
PC C12N15/09, C12N15/09, C07K14/34, C07K16/12

C12N1/15,
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KYOWA HAKKO KOGYO CO., LTD. (JP)
Location/Qualifiers
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1 (bases 1 to 1125)
Nakagawa, S., Mizoguchi, H., Ando, S., Hayashi, M., Ochiai Yokoi, H., Tateishi, N., Senoo, A., Ikeda, M. and Ozaki, A.
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SATOSHI NAKAGAWA, HIROSHI MIZOGUCHI, SEIKO ANDO, MIKIO HAYASHI,
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/mol type="genomic DNA"
/db xref="taxon:1718"
-355 c 283 g 214 t
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/mol_type="genomic DNA"
/db_xref="taxon:32644"
_355 c 283 g 21
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tive 0; Mismatches
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AX428867/c
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AX429521/c
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Sequence 3 from Patent EP1202065.
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Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                      1230 bp
Sequence 3 from Patent WO0235235.
AX429521
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Patent: EP 1202065-A 3 02-MAY-2002;
Aventis Pharma S.A. (FR); INSERM (
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Net, a transcription factor of the
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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Patent: WO 0235235-A 3 02-MAY-2002;
PATENTIS PHARMA SA (FR); INST NAT SANTE
Location/Qualifiers
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Net, a transcription factor of the tcf family,
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/codon start=1
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ESILLQDGDCKYSPEGREVHRIGLSSLKSASRREYLHSGLYSSFTINSLENAPEAFKA
IKTEKLEEPCDDSPPKEKKTYIRFVTNKTDKHITRPVMSLFSTSETAAAAASAFLAS
SYSAKISEIMLENAASYSSVSPSSSRSPSLSDBSFLFSERSLFLEAACHESDSLEPE
NLSGGSKTKSPSILPFKSKKPKGLEISAPQLILLSGTDIGSIALMSPALPSGSLTPAFFT
AQTPSGLFLASSPLLPSIHFMSSLSPVAPLSPARLQGPNTLFQFPTLLNGHMEVPPLPS
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/db_xref="taxon:10090"
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Location/Qualifiers
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Arabidopsis thaliana (thale cress)
Arabidopsis thaliana
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1753 bp mRNA
A.thaliana (Columbia) cyc3b mRNA for cy
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141. .1451
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|strain="Columbia"
                                                                                                                            codon_start=1
                                                                                                                                                                                                                                                    clone
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clone="cyc3bAt"
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100.0%; Pred. No. 4.8e+02;
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Tib="cell suspension lambda ZapII"
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Ledeganckstraat, 35, Gent, Belgium, B-9000
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Query Match

93.8%;

Score 15;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (29-APR-1994) Antoine Giovane, CNRS-LGME, INSERM-U.184, institut de Chimie, Biologique, 11 rue Humann, Strasbourg, 67085 Strasb. Cedex, France
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Giovane,A., Pintzas,A., Maira,S.M., Sobieszczuk,P. and Wasylyk,B. Net, a negative factor switch to positive by Ras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Giovane, A., Pintzas, A., Maira, S.M.,
Net, a new ets transcription factor
Genes Dev. 8 (13), 1502-1513 (1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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Net; ras gene.
Mus musculus (house mouse)
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Z32815
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Net, a negative factor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished
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                       /protein id="CAA83676.1"
//bb xref="GI:479113"
//db xref="GI:479113"
//db xref="MGI:101762"
                             Ø
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DILVDMHTEKSKLAEDLSKIRMAEAQDVSLSNFKDER TEQQEDGSGVMBLLQVDID
SNVEDFQCCSLYAADIYDNIHVAELQQRPLANYMELVGRDIIDDMKRIILDILVEVSD
DYKLVPDTLYLTVNLIDRFLSNSYIERGRLQLLGVSCMLIASKYEELSAPGVEEFCFI
TANTYTRREVLSMEIOILNFVHFRLSVPTTKTFLRRFIKAAQASYKVPFIELEYLANV
LAELTLVEYSFLRFLPSLIAASAVFLARWTLDQTDHPWNPTLQHYTRYEVAELKNTVL
AMEDLQLNTSGCTLAATREKYNQPKFKSVAKLTSPKRVTLLFSR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                        /codon_start=1
/product="Net"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dev_stage="10 days"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tissue_type="embryo"
clone_lib="lambda zap2"
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_xref="taxon:10090"
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1753;
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ATF4D11/c
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AL022537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (16-APR-1998) MIPS, at the Max-Planck-Institut fuer Biochemie, Am Klopferspitz 18a, D-82152 Martiharied, FRG, Project Coordinators Mike Bevan, Molecular Genetics Department, Cambridge Laboratory, John Innes Centre, Colney Lane, NR4 7UJ Norwich, UK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EU Arabidopsis sequencing, project.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bevan, M., Benes, V., Rechmann, S., Borkova, D., Ansorge, W., Hoheisel, J., Mewes, H.W., Mayer, K.F.X. and Schueller, C. Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Erassicales; Brassicaceae; Arabidopsis.
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15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E-mail: michael.bevan@bbsrc.ac.uk
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NIRKWEILESKSDEVOUNLSSEVEKIVENGGVVSITEMMNLLHQSRTSHVSLKVRR
STIDHELLYARTQIENPPLIENDPLLHTPLYMNLSMFKRSYELMEKKLKVYVYREGK
RFULKKFVLKGIYASEGMFMKQLKSSRTVTVKDPRKAHLFYLPESSKMLEETLYVPGS
RFULKKFVLKGIYASEGMFMKQLKSSRTTVTKDPRKAHLFYLPESSKMLEETLYVPGS
HSDKNLIQFLKNYLDMISSKYSFMNKTGGSDHFLVACHDMAPSTTRQYMAKCIRALCN
SDVSEGFVFGKDVALPETTILVPRRPLRALGGKPVSCHDWAPSTRQYMAKCIRALLQ
NWGGNNDDDMKIFSEIPKSKKSSKMEYMKSSKYCICPKCHEVNSSRVVBALFYECVP
VIISDNFVPFFFEVLMMESFAVFVLEKDIPDLKNILVSITEERYREMQMRVKMVQKHF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="F4D11.10"
complement(join(2154.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="F4D11.10"
complement(join(2154.
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/gene="F4D11.10"
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/gene="F4D11.10"
                                    /number=1
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                                                                                                                                                  LWHSKPERFDIFHMILHSIWYNRVFQI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="F4D11.10"
/note="Bimilarity to multiple exostosis 2, Homo sapiens"
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/chromosome="4"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ocation/Qualifiers
                                                                                                             gene="F4D11.10"
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arevrtalppetptemmeflgrswsisallphygnktsppttprtgremkhlyksmir
grtmgrrlkdqkekkkqetrtrnaeihaavsvagvaavvaataasnalaaaedavest
                                                                                                                                                                                                       complement(join(9271. .9522,9555. .9704,9801. .9917,
10008. .10115,10239. .10336,10486. .10655,10768. .10844,
11004. .11083,11294. .11609))
/gene="F4D11.30"
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/gene="F4D11.20"
complement (join(6155. .6547,7111.
8082. .8136))
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/gene="F4D11.20"
complement (join(6155.
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/gene="F4D11.10"
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                                                                                                                                                   complement (join (9271. .9522, 9555. 10008. .10115, 10239. .10336, 10486. .11004. .11083, 11294. .11609))
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/gene="F4D11.20"
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/gene="F4D11.20"
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/gene="F4D11.20"
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               /product="putative protein"
/protein_id="CAA18584.1"
/db_xref="GI:3063693"
                                                                                                  PIR2:S74814"
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/gene="F4D11.30"
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/gene="F4D11.20"
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/product="putative protein"
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/note="similarity to
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     _xref="SPTREMBL:065524"
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/note="tRNA"
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YAETVKSARWEYSTR PYYGWGDVGAKQKSTAGWPDAF PVFEFHQICWAGGLSTGWIE
WGGERFEFRDAPSYSEKNWGGGFPRKWFWVQCUVFEGATGEVALTAGGGLRQLFGLTE
TYEBAALVCYHYDGKWYEFVPMNGVVRWEMSPWGYWYITAENERHVVELEARTWEAGT
PLRAPTTEVGLATACRDSCYGELKLQIWERLYDGSKGKLKVLTNPKAVKEDYERLLWL
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PEKRESFCFMYSVENPAFRQSLSPLEVALYGFRFTGVGAQILGANDKYLCQYEQDSHN
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                                                                                                        note="EST Z33951 matches to coordinates 13310 to 13108"
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RESULT 8
AC132232 :
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Continuation 72 of 4) of
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TITLE
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Submitted (05-UUL-2000) MIPS, at the Max-Planck-Institut fuer
Submitted, PRG, B-mail:
Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, PRG, B-mail:
lemcke@mips.biochem.mpg.de,mayer@mips.biochem.mpg.de Project
lemcke@mips.biochem.mpg.de,mayer@mips.biochem.mpg.de Project
Coordinator: Mike Bevan, Molecular Genetics Department, Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana DNA chromosome project).
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Bevan,M., Volckaert,G., Grymonprez,B., Voet,M., Robben,J.,
Banoroft,I., Mewes,H.W., Rudd,S., Lemcke,K. and Mayer,K.F.X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                   Information on performance of analysis and a more detailed annotation of this entry and other sequences of chromosomes 3, 4 and 5 can be viewed at: http://www.mips.biochem.mpg.de/proj/thal/.
                                                                                                                                                                                                                                                                                                                                                                                                Laboratory, John Innes Centre, Colney Lane, E-mail: michael.bevan@bbsrc.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (bases 2885 to 110992)

Bevan,M., Peters,S.A., van Staveren,M., Dirkse,W., Stiekema,W.,
Bancroft,I., Mewes,H.W., Rudd,S., Lemcke,K. and Mayer,K.F.X.
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                 /translation="madltcttpfllypslv111ffys1nhhnq1fssvvdddpscrl
SSSPQAVFSSFR1fpfrsSSSCLN1TSNNNSTSEVVVVEEVDEAVER1EEGLAMARAA
IRKAGEKNLRRDRDRTNNSDVGVVSNGSVYLNAFTFHQLRPFLSPHFFPIFAYSLSLF
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/codon Btart=1
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join(5081. .5302,5485. .5751)
/gene="F2I11_10"
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exon	gene CDS	exon		gene CDS	intron exon	exon	gene CDS	exon intron exon
/gene="F2I11 40" //gene="F2I11 40" /note="similarity to synaptobrevin-like protein Sybl1, Mus musculus, EMBL:MMV133536" /codon_start=1 /product="putative protein" /protein_id="CAB95650.1" /protein_id="CAB95650.1" /db_xref="d="GB95650.1" /db_xref="d="MAIIFALVARGTVVLSEFSATSTNASSISKOILEKLFGNDSDSH /tranalation="MAIIFALVARGTVVLSEFSATSTNASSISKOILEKLFGNDSDSH MSYSQDRYIFHVKRTDGLTVLCMADETAGRNIPFAFLDDIHQRFVKTYGRAIHSAQAY SMNDEFSRVLSQOMEFYSRDFNADRMSRIKGEMSQVRNVMIENIKVLDRGERLEELLV DKTENMQGNTFRFRKQARRYRTIMWWRNVKLTIALILVLALVVYIAMAFVCHGPSLPS CFK" complement(93869476)	/ Serve - 2.1.7	AVMEKKĀGEHRLLLAKQEMELSLKKLABKEKEMKEFREKLMKTTGKLGSLEMKRTCLD KRLVFLRSKVEKFQGGSVFQDIL" 81048829 /gene="F2111_30" /number=1 938610605 /gene="F2111 40"	/note="similarity to pEARLI 4, Arabidopsis thaliana, /note="similarity to pEARLI 4, Arabidopsis thaliana, EMBL:ATPEARA" /codon start=1 /product="puttative protein" /protein_id="CAB95649.1" /protein_id="CAB95649.1" /db_xref="GI:8953176" /db_xref="MSLCSEISQLHVPHWNSAYSVFNDDNDKDSVLLFPELLFSPLNK ALVITTSDSWDVVSVGBYKVKASLSSTLQSIFDKYGDITSNSKLQSLSTRTYHLETLA ENVITELOSTPLRFLSRRATETIAIUDDIETAKTRVGWIRSVLEFVLEVLEAVRXFDRCEM	/number=2	/gene="F2111_20" /number=1 67256816 /gene="F2111_20" /number=1 /number=1 68177485 /gene="F2111_20"	M < 2 > H = 0 = 1	/gene="F2II1 20" /gene="F2II1 20" /gene="F2II1 20" /gene="F2II1 20" /note="similarity to various predicted proteins, Arabidopsis thallana" /codon_start=1	50815302 /gene="F2111_10" /number=1 /s3035484 /gene="F2111_10" /number=1 54855751 /gene="F2111_10" /number=2 /number=2
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Baldwin, D., Bandaranatke, D., Barber, M., Barnstead, M., Benahmed, F., Biswalo, K., Blair, J., Blankenburg, K., Blyth, P., Brown, M., Bryant, M., Buday, C., Burch, P., Burrell, K., Calderon, E., Cardenas, V., Carter, K., Cavezos, I., Casacr, H., Center, A., Chen, X., Chen, X
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HTG; HTGS_PHASE2; HTGS_DRAFT; HTGS_ENRICHED
Rattus norvegicus (Norway rat)
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/gene="F2711_60"

/note="Published sequence extends beyond the 5' of annotation. This cannot be reconciled by any gene
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On Nov 19, 2002 this sequence version replaced gi:23815605.
The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-caffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank draft data./NOTE: This is a 'working draft' sequence. It currently consists of 1 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      is believed to be correct as given, he of the gaps between them are based on provided by the submittor.
                                                                                                                                                                                                                                                                                                                                                                                    by the finished sequence as soon as it is available and the accession number will be preserved.
1 128789; contig of 128789 bp in length.
Location/Qualifiers
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Center clone name: CH230-393022
Center clone name: CH230-393022
Center clone name: CH230-393022
Center Summary Statistics
Assembly program: Phrap; version 0.990329
Consensus quality: 124060 bases at least Q40
Consensus quality: 125030 bases at least Q30
Consensus quality: 126081 bases at least Q20
Estimated insert size: 125161; sum-of-contige estimation
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/mal_type="genomic DNA"
/db_xref="taxon:10116"
/clone="CH230-393022"
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                                                                                                                                                                           Agrobiological Sciences, Rice Genome Research Program; Kannondai 2-1-2, Tsukuba, Ibaraki 305-8602, Japan (E-mail:tsasakianias affrc.go.jp, URL:http://rgp.dna.affrc.go.jp/, Tel:81-298-38-7441, Fax:81-298-38-7468)

NOTE: It currently consists of l contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submitter. This sequence will be replaced by the finished sequence as soon as it is available and the accession number will be preserved.

* This is a "working draft" sequence.

* This sequence will be replaced by the finished sequence as soon as it is the accession number will be preserved.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (13-FEB-2002) Takuji Sasaki, National Institute of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sasaki, T., Matsumoto, T. and Yamamoto, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published Only in Database (2002)
2 (bases 1 to 143779)
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Oryza sativa (japonica cultivar-group)
Eukaryota, Viidiplantae, Streptophyta; Em
Spermatophyta; Magnoliophyta; Liliopsida;
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Direct Submission
M., Schapp-Jone, Whitehaad Tneffire Mitter Center for Cenome
LITECT SUDMILSUON
SUBMITTED (255 APR 2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
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RS Birren, B., Nusbaum, C., Lander, E., Abouelleil, A., Allen, N., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Boukhgalter, B., Camarata, J., Chang, J., Choepel, Y., Collymore, A., Cook, A., Cooke, P., Corum, B., DeArellano, K., Diaz, J.S., Dodge, S., Dooley, K., Dorris, L., Erickson, J., Faro, S., Ferreira, P., PitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Graham, L., Grand-Pierre, N., Hafez, N., Hagopian, D., Hagos, B., Graham, J., Garatas, A., Kells, C., Landers, T., Levine, R., Lindblad Toh, K., Liu, G., Lui, A., Mabbitt, R., MacLean, C., Lindblad Toh, K., Liu, G., Lui, A., Mabbitt, R., MacLean, C., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Ngyen, C., Nicol, R., Norbu, C., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Phunkhang, P., Pierre, N., Spencer, B., Stange-Thomann, N., Stojanovic, N., Stubbe, M., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Venkataraman, V.S., Viel, R., Vo, A., Wilson, B., Wu, X., Vassiliev, H., Venkataraman, V.S., Viel, R., Vo, A., Wilson, B., Wu, X.,
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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NCE, 3 unordered
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RESULT 13
AC119639
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                                                                                                    113721
                                                                                                                                                                                                    Local
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Submitted (24-FEB-2003) Whitehead Institute/MIT Center for Genome Submitted (24-FEB-2003) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Feb 24, 2003 this sequence version replaced gi:25989088.
All repeats were identified using RepeatMasker: html
Smit, A.F.A. & Green, P. (1996-1997)
                                                                                                                                         μ.
  AC119639
                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOTE: This is a 'working draft' sequence. It currently consists of 3 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                    ACTCTGGAGCGTTCT 113707
                                                                                                                                         ACTOTGGAGCGTTCT 15
                                                                                                                                                                                                                                                                                   54672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Assembly program: Phrap; version 0.960731
Consensus quality: 170946 bases at least Q40
Consensus quality: 171051 bases at least Q30
Consensus quality: 171082 bases at least Q20
Insert size: 165000; agarose-fp
Insert size: 171151; sum-of-contigs
Quality coverage: 13.6 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequencing vector: Plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: sequence_submissions@genome.wi.mit.edu
------ Project Information
Center project name: L25218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center clone name: 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center: Whitehead Institute/ MIT Center for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www-seq.wi.mit.edu
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vector_side:l
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                                                                                                                                                                                                                                                                                                                                                                               /note="assembly_fragment"
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                                                                                                                                                                                                                                                                                                                                       note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone_lib="RPCI-24 Male Mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            clone="RP24-200120"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mol_type="genomic DNA"
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31746 c 31997 g
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9515: gap of 100 bp
47760: contig of 38245 bp in length
47860: gap of 100 bp
171351: contig of 123491 bp in length
                                                                                                                                                                                                 93.8%; Score 15; DB 2; L
100.0%; Pred. No. 6.1e+02;
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172305 bp
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  DNA
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                                                                                                                                                                                                                                                                                 200 others
  linear
  HTG 20-NOV-2002
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                                                          REFERENCE
AUTHORS
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JOURNAL
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AUTHORS
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Bryant, N., Bladt, C., Burch, P., Burrell, K., Calderon, R.,
Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A.,
Chacko, J., Chavez, D., Chen, G., Chen, Y., Chen, Y., Chen, Z.,
Cheveland, C., Cockell, R., Cox. C., Coyle, M., Cree, A., D., Souza, L.,
Davila, M.L., Davis, C., Davy-Carroll, L., De Anda, C., Dederich, D.,
Delgado, O., Denson, S., Deramo, C., Ding, Y., Dinh, H., Divya, K.,
Draper, H., Dugan-Rocha, S., Dunn, A., Durbin, K., Duval, B., Eaves, K.,
Egan, A., Escotto, M., Eugene, C., Evans, C.A., Falls, T., Fals, G.,
Ferrandez, S., Finley, M., Flagy, M., Forster, M., Foster, P.,
Fraser, C.M., Gabis, A., Ganta, R., Garcia, A., Garner, T., Garza, M.,
Gunaratne, P., Haaland, W., Hamilton, C., Hamilton, K.,
Harvey, Y., Havlak, P., Hawes, A., Henderson, N., Hernandez, J.,
Herrandez, R., Haland, W., Hamil, C., Hamilton, C., Hamilton, K.,
Hollins, B., Howells, S., Hladun, S.L., Hodgson, A., Hegues, M.,
Jackson, L., Jacob, L., Jiang, H., Johnson, B., Johnson, R., Jolivet, A.,
Karpathy, S., Kelly, S., Kelly, S., Kally, S., Kan, Z., King, L., Kovar, C.,
Kowis, C., Kraft, C.L., Lebow, H., Levan, J., Lewis, J., Li, Z., Liu, J.,
Liu, J., Liu, W., Liu, W., Londen, P., Longacre, S., Lopez, J.,
Liu, J., Liu, W., Land, P., Martin, R., Pall, S., Parks, K.,
Paleser, F., Polndexter, A., Perez, L., Ffamkoch, C.,
Plopper, F., Polndexter, A., Perez, M., Perez, L., Ffamkoch, C.,
Plage, F., Reilly, M., Ren, Y., Reuter, M., Rose, M., Rose, M., Rojes, F., Riggs, F.,
Nandervie, G., Wall, R., Waller, B., Waller, B., Wa
Submitted (20-NOV-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                              Submitted (30-APR-2002) Human Genome Sequencing of Molecular and Human Genetics, Baylor College Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                           Worley, K.C.
Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
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Biswalo,K., Blair,J., Blankenburg,K., B
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                                                                                                                                                     Rat Genome Sequencing Consortium.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Amin, A., Anguiano, D.
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                                                                                                                                                                                                                                                                       Center, Department of Medicine, One
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                                                                                                                                                                              ь
Homo sapiens chromosome 19 unordered pieces.
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                                      AC023124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOTE: Estimated insert size may differ from sequence length
(see http://www.hgsc.bcm.tmc.edu/docs/denbank draft data.html).

NOTE: This is a 'working draft' sequence. It currently
consists of 1 contigs. Gaps between the contigs
are represented as runs of N. The order of the pieces
is believed to be correct as given, however the sizes
of the gaps between them are based on estimates that have
provided by the submittor.
This sequence will be replaced
the accession number will be preserved.

1 172305: contig of 172305 bp in length.
                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                 ACTCTGGAGCGTTCT 15
                                                                                                                                           ACTCTGGAGCGTTCT 91439
                                                                                                                                                                                                                                                                                                                       48578
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Center clone name: CH230-444M11

Center clone name: CH230-444M11

Center clone name: Phrap; version 0.990329

Assembly program: Phrap; version 0.990329

Consensus quality: 165519 bases at least Q30

Consensus quality: 16554 bases at least Q30

Consensus quality: 167424 bases at least Q20

Estimated insert size: 168444; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Web site: http://www.hgsc.bcm.tmc.edu/Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Quality coverage: 8x in Q20 bases; sum-of-contigs estimation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center: Baylor College of Medicine
                                                                                                                                                                                                                    93.8%; Score 15; DB 2; L
llarity 100.0%; Pred. No. 6.1e+02;
Conservative 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                          /note="wgs_contig"
171273. .172305
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36286 c 35021 g
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'clone="CH230-444M11"
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mol_type="genomic DNA"
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                                                                                                                                                                                                                                                                                                                                                                                                                   sequence:BZ179596"
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                    176146 bp DNA
ne 2 clone RP11-31005,
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                                                                                                                                                                                                                                                                                                                       3883 others
                                                                                                                                                                                                                                                         Length 172305;
                      WORKING DRAFT SEQUENCE,
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Sequencing vector: plasmid; 0%
Sequencing vector: plasmid; 0%
Chemistry: Dye-primer ET; 100% of reads
Chemistry: Dye-terminator Big Dye; 0% of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 164946 bases at least Q40
Consensus quality: 164946 bases at least Q30
Consensus quality: 170270 bases at least Q20
Insert size: 173000; agarose-fp
Quality coverage: 4.09 in Q20 bases; agarose-fp
Quality coverage: 4.12 in Q20 bases; sum-of-contigs
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On Oct 20,
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Submitted (08-FEB-2000) Genome Sequencing Center, Washington University School of Medicine, 4444 Forest Park Parkway, St.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Waterston, R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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7508: gap of unknown
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116661. .146476
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114246. .116560
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/mol_type="genomic DNA"
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chromosome="2"
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Location/Qualifiers
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Terryn,N., Ardiles,W., Buysshaert,C., Dasseville,R., De Clerck,R.,
De Keyser,A., Neyt,P., Rouze,P., Van Den Daele,H., Villaroel,R.,
Gielen,J., Van Montagu,M., Mewes,H.W., Lemcke,K. and Mayer,K.F.X.
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                                                                                                                                                                                                                                                                                                                                                             /note="strong similarity to serine/threonine-specific protein kinase PK10 precursor, Oryza sativa, PIR2:S50767 Contains Protein kinases signatures and profile AA571-583 Contains EST gb:AI995352.1, R90564, T44889, T45358"
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                                                                       SSLLGNSWRFFDQKQVLLWQFVFSDNKDDNTTWIAVLGNNGVISFSNLGSGASAADSS
TKIPSDLCGTPEPCGPYYVCSGSKVCGCVSGLSRARSDCKTGITSPCKKTKDNATLPL
QLNSSGNCFLFDYIGSFKTSGNGGSGFVSYIKIASTCSGGGNKGEDDGKHFPYVVIIV
                                                                                                                                                       GIFLESNNSAFGFGFVTTQDSVTLFTLSIIHKSSTKLIWSANRASPVSNSDKFVFDDN
GNVVMEGTEVWRLDNSGKNASRIELRDSGNLVVVSVDGTSIWESFDHPTDTLITNQAF
KEGMKLTSSPSSSNWTYALEIKSGDMVLSVNSLTPQVYWSMANARERIINKDGGVVTS
NFSVKLGQGGFGSVYEGTLPDGSRLAVKKLEGIGQGKKEFRAEVSIIGSIHHLHLVRL
RGFCAEGAHRLLAYEFLSKGSLERWIFRKKKDGDVLLDWDTRFNIALGTAKGLAYLHED
                                              VVTVFIIAVLIFVAFRIHKRKKMILEAPQESSEEDNFLENLSGMPIRFAYKDLQSATN
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/gene="AT4g32300"
                                                                                                                                                                                                                                                          /product="S-receptor kinase-like protein"
/protein_id="CAB79948.1"
/db_xref="GI:7270135"
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/gene="AT4g32300"
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/note="overlap
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/chromosome="4"
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nd annotation"
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Search completed: Ja Job time : 572.176 в	Oy 2 CTCTGG Db 176431 CTCTGG	Query Match Best Local Similarity Matches 15; Conser	exon	intron	exon	intron	exon	intron	exon	intron	exon	intron	exon	intron	exon	intron	exon	intron	exon
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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432.929 Million cell updates/sec
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ALIGNMENTS

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Nakagawa S, Mizoguchi H, Ando S, Hayashi M, Ochiai K, Yokoi H; Tatelshi N, Senoh A, Ikeda M, Ozaki A;	(KYOW) KYOWA HAKKO KOGYO KK.	03-AUG-2000; 2000JP-0280988.	07-APR-2000; 2000JP-0159162.	16-DEC-1999; 99JP-0377484.	10-111-1000, 4000H-1014/000.	18-757-2000. 200055-0127688	20-JUN-2001.		EP1108790-A2.		Corynebacterium glutamicum.		organic acid synthesis; ds.	Coryneform bacterium; amino acid synthesis; vitamin; saccharide;	C glutamicum coding sequence fragment SEQ ID NO: 3346.		26-SEP-2001 (first entry)		AAH68311;		AAH68311/c ID AAH68311 standard; DNA; 1125 BP.	

P-PSDB; AAG93092

mutation point of a gene, measuring expression of a gene, analysing expression profile or pattern of a gene and identifying homologous Novel polynucleotides derived from Coryneform bacteria, for identifying

analysing

gene

8; SEQ ID NO: 3346; 246pp + Sequence Listing; English

provides a number of nucleotide and protein

The present

Claim

sequences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing the expression profile or expression pattern of a gene derived from Coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium. Coryneform bacteria are useful for producing amino acids, nucleic acids, vitamins, saccharides and organic acids, particularly L-lysine. The present sequence is a nucleic acid described in the exemplification of the invention.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the

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372

CTCTGGAGCGTTCTC 358

N

CTCTGGAGCGTTCTC:16

Matches Query Match Best Local

Similarity

93.8%; acc 100.0%; Pr

Score 15; Pred. No.

Mismatches

1.2e+02; hes 0; DB 22;

0,

Gaps

ò

Length 1125; Indels

Conservative

Sequence 1125 BP; 273 A; 355 C; 283 G;

214 T; 0 other;

Patent Office.

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RESULT 2
ABK85615/c
 PIXERRANGE
                                                                                                                                                                                                                                                                       NET; mouse; gene; ds; ERP; SAP-1; angiogenesis; transgenic; ulcer; ischaemia; wound healing; vascular restenosis; hypertension; dementia; alzheimer's disease; lymphoedema; atherosclerosis; hasemangioma, bone; haemangioendothelioma; ovarian hyperstimulation; endometriosis; ascites; follicular cyst; Kaposi sarcoma; tumour; cancer; allergy; synovitis; respiratory distress; rheumatoid arthritis; pneumonia; thyroiditis; cartilage dysfunction; obesity; asthma; inflammation; hepatitis; glomerulonephritis; diabetic retinopathy; thyroiditis; nasal polyp;
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Wasylyk B,
                                                                                                                                                                                                                                                                                                                                                                                                                       16-AUG-2002
                                                                                                                                             EP1202065-A1.
                                                                                                                                                                                                                                                                chromosome 10C-D1.
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                                                                                         25-OCT-2000;
                                                                                                                   02-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                              DNA encoding murine NET protein
                         (AVET ) AVENTIS PHARMA SA.
(INRM ) INSERM INST NAT SANTE & RECH MEDICALE.
                                                                                                                                                                                                                                     дB
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                                                                                                                                                                                               Location/Qualifiers
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                                                                                                                                                                       /product= "Mouse NET protein"
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CTCTGGAGCGTTCTC 16 CTCTGGAGCGTTCTC

Matches Query Match

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l Similarity 15; Conserv

Conservative

100.0%; 93.8%;

Score 15; Pred. No.

DB 24; I 1.2e+02;

Length 1230;

0;

Gaps

0

0

Mismatches

Corynebacterium

glutamicum

16-DEC-1999;

18-DEC-2000; 2000EP-0127688

20-JUN-2001.

Coryneform bacterium; amino organic acid synthesis; ds.

26-SEP-2001 AAH68534;

(first entry)

glutamicum

coding sequence fragment SEQ ID

acid synthesis; vitamin; saccharide;

o:

AAH68534 standard; DNA; 309400

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This invention relates to the use of all or part of a NET (also known as CC ERP or SAP-1) polypeptide to identify compounds modulating angiogenesis CC or compounds that can be used to prevent or treat pathologies associated with angiogenic disorders. The invention also comprises transgenic canimals that bear mutations in the NET gene. The method and transgenic canimals of the invention are useful to identify compounds to treat pathologies associated with angiogenic disorders involving insufficient vascularisation and requiring increased angiogenesis (e.g. cardiac/cc pathologies associated with angiogenic disorders involving insufficient vascularisation, ulcers, alzhelmer's disease, lymphocedema, dementia) compounds increased vascularisation and requiring decreased covarian hyperstimulation, endometriosis, ascites, follicular cysts, ).

CC pariopensis (e.g. atherosclerosis, haemangioma, haemangiomachelioma, covarian hyperstimulation, endometriosis, ascitues, follicular cysts, ).

CC proventh and cancer, or other pathologies is such as Kaposi sarcoma, tumour growth and cancer, or other pathologies such as Kaposi sarcoma, tumour cysts are also useful to identify compounds useful to treat pathologies associated with angiogenic disorders such as Kaposi sarcoma, tumour cysts, as the compounds may also be used to treat allergies, dysfunctional cartilage dysfunction, obesity, synovitis, inflammation, hepatitis, bone and cartilage dysfunction, obesity, synovitis, inflammation, hepatitis, compounds modulating proteins or NET dominant negative mutants.

CC compounds modulating Nets activity may also be included in medicaments to prevent and/or treat pathologies associated with angiogenic disorders. CC protein used in the method of the invention, the gene encoding this protein is located on murine chromosome 10C-D1.
Use of all or part of a NET polypeptide to identify compounds useful to modulate angiogenesis and prevent or treat pathologies associated with angiogenic disorders e.g. cardiac ischaemia, atherosclerosis or tumour
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P-PSDB; AAU97931.
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Sequence 1230 BP; 278 A; 415 C; 285
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G;
  252 T; 0 other;
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RESULT 4
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DT 26-4
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XW
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Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention provides a number of nucleotide and protein sequences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing the expression profile or expression pattern of a gene derived from Coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium. Coryneform bacteria are useful for producing amino acids, nucleic acids, victamins, saccharides and organic acids, particularly L-lysine. The present sequence is a nucleic acid described in the exemplification of the invention.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the European Patent Office.
                                                                                                                                                                                                                                                                                                                                                                                                     IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection, bio-warfare; vaccine; antieense therapy; eczema; allergic rhintitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HTV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel polynucleotides derived from Coryneform bacteria, for identifying mutation point of a gene, measuring expression of a gene, analysing expression profile or pattern of a gene and identifying homologous gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-APR-2000; 2000JP-0159162.
03-AUG-2000; 2000JP-0280988.
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Tateishi N,
                                                                14-JAN-2000; 2000US-0176115.
                                                                                                                          12-JAN-2001; 2001WO-US01122
                                                                                                                                                                                                                                                    WO200151500-A1
                                                                                                                                                                                                                                                                                                                 Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS09557 standard; DNA; 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-376931/40.
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                                                                                                                                                                                                                                                                                                                                                                           Leishmania;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Immunoreactive CpG sequence-containing oligonucleotide #7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence; immune response; non-B cell activation; interferon gamma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N
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                                                                                                                                                                                                                                                                                                                                                                               Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
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Senoh A, Ikeda M, Ozaki A;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 309400;
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                                                                                                                                                                                                                                                                                                                                                                                                               syndrome; AIDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   infection;
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The ODN are useful for inducing an immune response, preferably a cell-

CC mediated immune response, involving non-B cell activation, interferon

CC gamma (IFN-gamma) production or a humoral immune response involving B

CC cell activation, antibody and interleukin-6 production in a host, for

CC treating, preventing or ameliorating an allergic reaction, e.g. asthma,

CC cancer, e.g. solid tumour cancer, a disease associated with the immune

CC system e.g. autoimmune disorder or an immune system deficiency, infection

CC or a symptom resulting from exposure to bio-warfare agent in a human. The

CC induction of immune response improves the efficacy of a vaccine and is

CC used in antisense therapy. The ODN are useful for treating, preventing or

CC meliorating allergic reactions, including eczema, allergic rhinitis or

CC coryza, hay fever, bronchial asthma, urticaria (hives), food allergies

CC against hepatitis A, B and C, human immunodeficiency virus (HIV) and

CC malaria, for treating immune system deficiencies, e.g. lupus

CC erythematosus and autoimmune diseases such as rheumatoid arthritis and

CC multiple sclerosis infections including reactional archirals and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
                                                                      multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
Sequence 16 BP; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleotides comprising multiple CpG sequences, where one of the Cp sequences is different from another of the multiple CpG sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Klinman
                                                 Anthrax and Listeria.
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A; 6
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C; 3
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G; 5 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of the
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Matches Query Match Best Local : ш 15; Similarity ACTCTGGAGCGTTCTC ACTOTOGAGOGTTOTO 16 Conservative 90.0%; 93.8%; 16 0 Score 14.4; Pred. No. 1 Mismatches DB 22; Indels Length <u>,</u> Gaps

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RESULT 5
AAC80526
XX AAC80
XX AAC80
XX AAC80
XX Immu
DE Immu
XX CpG
WW immu
XX CpG
KW celli
KW celli
KW vacc
KW vacc
KW vacc
KW vacc
KW vacc
KW anti
                                                                                                                                                       AAC80587 standard; DNA; 16 BP
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14-FEB-2001

(first entry)

Immunogenic

CpG oligodeoxynucleotide, SEQ ID NO:7.

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell;
immunogenic; cytokine release; natural killer cell; NK cell activation;
cell-mediated immune response; T-cell response; humoral response;
B-cell response; antibody production; immune response induction;
vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal
parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus;
rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;
immune deficiency; biological warfare agent; cytostatic; antiarthritic;
antimicrobial; antiallergic; protozoacide; tuberculostatic;
antiasthmatic; dermatological; phosphorothioate; ss. protozoal;

Synthetic

WO200061151-A2

19-OCT-2000

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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RESULT 6
ABK46435
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                                                                                                                                                                                                                                                                             CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long cand comprise one of the generic sequences 5'.NNN'-C9G-WNN-3' or conjuncted are at least 10 bases long cand comprise one of the generic sequences 5'.NNN'-C9G-WNNN-3' or conjuncted them more resistant to degradation. The inventionate linkages which make coligonucleotide by the degradation. The inventional also relates to an coligonucleotide delivery complex comprising an oligonucleotide of the cinvention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence 5'.NNN'-C9G-WNNN-3' being able to induce a cell-mediated (T-cell) response or a humoral coligonse. It is thought that after administration, the oligonucleotide of the sequence 5'.NNN'-C9G-WNNN-3' being able to induce a humoral colide on antigen-presenting cells (e.g., macrophages and dendritic response. It is thought that after administration induce a humoral colide contains an antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural coligonucleotide is administration of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG coligonucleotide is administrated either alone or in combination with an accumal and the confidency and allergies and cher atopic conditions and the curtainaria food allergies and other atopic conditions, and the curtainaria food allergies and other atopic conditions, and the confidency and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either adoner in combination with an anti-cancer agent, is useful for treating conditions and the combination with an anti-cancer agent, is useful for treating coligonucleotide, either adone or in combination with an anti-cancer agent, is useful for treating coligonucleotide is perferably administered to lymphocytes ex vivo, at
                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating
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                 ABK46435
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ISHII K.
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               standard; DNA; 16
                                                                                                                          ACTCTGGAGCGTTCTC 16
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                                                                                                                                                                      Conservative
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                                                                                                                                                                                      Score 14.4;
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                                                                                                                                                                                                        Length 16;
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04-APR-2002

(first entry)

DNA/RNA hybrid;

Immunostimulatory oligonucleotide SEQ ID NO:

vaccine; infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss.

phosphorothicate backbone; immunostimulatory;

밁 S

ACTCTGGAGCGTTCTC 16

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ACTCTCGAGCGTTCTC 16

ABL35629 standard; DNA; 16

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Matches
            Query Match
Best Local :
                                                                                             The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the
                                                                                                                                                                                                                                                                                        epitopes
linked by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                  10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                    Sequence 16
                                                                                                                                                                                                                                                            Claim 4; Page
                                                                                                                                                                                                                                                                                                                     Vaccine for
                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-227118/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bronchopulmonary dysplasia; congenital heart
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                                                                                                                                                                                                                                                                                                                                                                                                         (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unmethylated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immunostimulatory unmethylated CpG oligodideoxynucleotide #25
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15;
             Similarity
                                                                                                                                                                                                                                                                                     for immunising patient against respiratory syncytial virus, has of Paramyxoviridae F protein, and cytosine followed by guanine y phosphate bond-oligodideoxynucleotides -
                                                                                    of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                            Prince G,
                                                       B₽;
Conservative
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             90.0%;
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             Score 14.4; DB 24
Pred. No. 1.8e+02;
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ABL35643
ID ABL3
XX ABL3
AC ABL3
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Matches 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or cytokines, particularly for treating diseases, e.g. cancer, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mond
                                                                                                             DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine; infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL35643 standard;
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/note= "optionally thymidine is replaced by uracil to
/note= "optionally thymidine is linked to at
form RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a bio-warfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification
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                                                                                                                                          Synthetic
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/note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
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Pred. No. 1.8e+02;
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                                                                                                  CpG sequence; immune response; non-B cell activation; interferon gamm IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New immunostimulatory compositions comprising RNA/DNA hybrid oligonuclectides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection
                                         lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; Leishmania; Ebola; Anthrax; Listeria; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                             Immunoreactive CpG sequence-containing oligonucleotide
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CC nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences.

CC The ODN are useful for inducing an immune response, preferably a cell-cc mediated immune response, involving non-B cell activation, interferon cc cell activation, antibody and interleukin-6 production in a host, for creating, preventing or ameliorating an allergic reaction, e.g. asthma, cc cancer, e.g. solid tumour cancer, a disease associated with the immune compared induction of immune disorder or an immune system deficiency, infection or asymptom resulting from exposure to bio-warfare agent in a human. The cinduction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy virus (HIV) and comparist hepatitis A, B and C, human immunodeficiency virus (HIV) and comparist the crosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and comparison resulting from exposure of bio-warfare agent, including Ebola, including E
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Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 5; Page 29; 48pp; English
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  BP;
                                                    Listeria.
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     other;
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                                 Query Match
Best Local (
                           Matches
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                                 Similarity
            ACTCTGGAGCGTTCTC
                           Conservative
                                 90.0%;
17
            16
                         Score 14.4; UD ...
pred. No. 1.9e+02;
                                        Length 17;
                            Indels
                            0
                            Gaps
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AAC80594 standard; DNA; 17

14-FEB-2001 (first entry

[mmunogenic CpG oligodeoxynucleotide, SEQ ID NO:14.

CpG oligodeoxymucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; treal response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa; parasitic; tuberculosis; AIDS; autoimmune disease; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; protozoal;

Synthetic

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cc acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural ckiller (NK) cells. A cell-mediated or humoral response can then occur by cc activation of T- or B-cells. The induction of an immune response is cc useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immune genic cg coligonoucleotide is administered either alone or in combination with an cc anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, cc writicaria, food allergies and other atopic conditions, and the curicaria, food allergies and other atopic conditions, and the cc infections which may be treated include viral, bacterial, fungal and compositions which may be treated include viral, bacterial, fungal and cc infections which may be treated include viral, bacterial, fungal and cc infections with may calso be used in the creamant of an autoimmune response induction may also be used in the creament of an autoimmune flipse sclerosis, AIDS, leishmania and cc agent of biological warfare. An immunogenic CpG oligonucleotide, either cc alone or in combination with an anti-cancer agent, is useful for treating collid tumour cancer. The induction of an immune response is used in cc antisense therapy and to improve the efficacy of a vaccine. The continue sequence represents an immunogenic CpG oligonucleotide is preferably administered to lymphocytes ex vivo, of the invention.
                                                                                                                 Query Match
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antimicrobial; antiallergic; protozoacide; tuberculostatic;
antiasthmatic; dermatological; phosphorothioate; ss.
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     Local Similarity
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     Score 14.4; DB 22;
Pred. No. 1.9e+02;
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26-SEP-2001

(first entry)

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Matches
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                                                                                                                                                                                                                                                                         The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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01-SEP-2000; 2000US-229307P.
                            AAS09561;
                                                        AAS09561 standard; DNA; 18
                                                                                                                                                                                                                                             Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 4; Page 7; 30pp; English.
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Immunoreactive CpG sequence-containing oligonucleotide #11.

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                                                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oligodeoxymucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
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                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                  tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 5; Page 29; 48pp; English
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                                                                                                                    Score 14.4; DB 22; Pred. No. 1.9e+02;
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RESULT 14 AAF99525

Immunogenic CpG oligodeoxynucleotide,

SEQ ID NO:11

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RESULT 15
AAC80591
ID AAC80
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DT 14-FE
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Best Local :
                                                                                                                                                                                                                                                                                                                             immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens raparasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or immune deficiency. The present sequence can also be used to redirect a Th2 to a Th1 immune response and to activate immune cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       response. The method comprises administering an immunostimulatory acid to a non-rodent subject in sufficient quantity to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vaccinating against tumors, infectious diseases, allergies using immunostimulatory Py-rich and TG nucleic acids -
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27-SEP-1999; 99US-0156135.
23-AUG-2000; 2000US-0227436.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunostimulatory; tumour; viral infection; bacterial infection;
fungal infection; parasitic infection; cancer; asthma;
infectious disease; allergy; immune deficiency; phosphorothioate;
                                                                                                                                                                                                                                                                                      Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vaccine; cytostatic;
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                                          14-FEB-2001
                                                                                                  AAC80591 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                 Note: the present sequence may have a phosphorothioate backbone
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                                                                                                                                                                                                                                                                                      B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention relates to a method for stimulating an immune
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                                          (first entry)
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                                                                                                                                                                                                                                                                                      2 A;
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Pred. No. 1.
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nes 1;
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nucleic

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic

WO200061151-A2

19-OCT-2000

12-APR-2000; 2000WO-US09839.

12-APR-1999; 99US-0128898.

(KLIN/) KLINMAN D. ISHII

(VERT/) VERTHELYI D

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment o allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent of.

Claim 4; Page 25; 46pp; English.

CC acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural classifier (NK) cells. A cell-mediated or humoral response can then occur by cartivation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immune response is colligonucleotide is administered either alone or in combination with an curricaria, food allergies and other atopic conditions conditions which may be treated include eczema, allergic rhinitis, hayfever, colligonucleotide is and other atopic conditions, and the confections which may be treated include viral, bacterial, fungal and confections which may be treated include viral, bacterial, fungal and confections which may be treated include viral, bacterial, fungal and confections which may be treated include viral, bacterial, fungal and confections which may be treated include viral, bacterial, fungal and confections and multiple sclerosis, alpha especiated with immune response induction may also be used in the confection of an autoimmune disorder (e.g., lupus erythematosus, confections expected with a symptoms resulting from exposure to an companie warfare. An immunogenic CpG oligonucleotide, either allergic conditions activated lymphocytes which are the efficacy of a vaccine. The confection of an immune response is used in the confection particle is preferably administered to lymphocytes ex vivo, considered in the confection of an immune response is used in the confection of an immune response is used in the confection of an immune response is used in the confection of an immune response is used in the confection of an immune response is used in the confection of an immune response is used in the confection of an immune response is used in the confection of an immune response is used in the confection of an immune response is used in the confection of an immune response is used in the confection oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CPG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-RNOT-CPG-MNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an The present sequence of the invention. oligodeoxynucleotide

> X & Sequence 18 BP; 2 A; 7 C; 4 G; 5 T; 0 other;

Matches Query Match Local 15; Similarity Conservative 90.0%; 0; Mismatches Score 14.4; Pred. No. .9e+02; DB 22; Indels Length 18; 0,

Gaps

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Search completed: January 20, 2004, 17:31:48 Job time : 100.765 secs

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Maximum Match 100%
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Maximum DB seq length: 200000000
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1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*

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3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*

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US-08-738-652-21
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US-09-286-098-9
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	ore 14.4; ed. No. 22; Mismatches	013CP	063 S	TORY	08-960-774 08-386-063 08-386-063 08-386-074 08-238-863 08-238-863 08-238-863 08-238-863 08-443-407 -U895-0560 09-463-458	-286 -750 -363 -926 -386 -386
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                                                                                                                                                                                                                                                           Sequence 8, Application Patent No. 6194388
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Best Local Similarity
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APPLICANT: Arthur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (617)227-594: INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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TELEPHONE: (617)227-7400
TELEPAX: (617)227-5941
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ATTORNEY/AGENT INFORMATION:
NAME: ARNOLD, BETH E.
REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: UI
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SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 STATE STREET, SUITE 510
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                                                                                                                                                                                                              APPLICANT: Arthur M. Krieg, M.D.
TITLE OF INVENTION: IMMUNOMODULATORY OLIGONUCLEOTIDES
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                                                                                                                                                                                            UMBER OF SEQUENCES:
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OTHER INFORMATION:
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TYPE: nucleic acid
STRANDEDNESS: single
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                               US-08-386-063-10
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Patent No. 6194388
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                               TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: ARNOLD, BETH E.
REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: UIZ-013CP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: UT:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA: APPLICATION NUMBER: US,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 STATE STREET, SUIT
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                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION: NAME: ARNOLD, BETH E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION:
                                                                                               FEATURE:
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STREET:
STREET:
MASSA/
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                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII text
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
7TP: 02109-1875
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TYPE: nucleic acid
STRANDEDNESS: single
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                                                OTHER INFORMATION:
                                                                            NAME/KEY: misc_feature
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                                                             LOCATION:
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90.0%;
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Pred. No. 22;
0; Mismatches
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Score 14.4; DB 3; Length 20;
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Query Match

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; OTHER INFORMATION: Synthetic oligonucleotide US-08-738-652-18
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Best Local Similarity 93.8%;
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CURRENT APPLICATION NUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
                                                                                                                                                                                                                                              SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 19 LENGTH: 20
                                                                                                                                                                                                                                                                                                EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
EARLIER APPLICATION NUMBER: US 08/386,063
EARLIER FILING DATE: 1995-02-07
NUMBER OF SEQ ID NOS: 55
                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/08/738,652B CURRENT FILING DATE: 1996-10-30
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EARLIER FILING DATE: 1995-02-07
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TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Krieg, Arthur M.
                                                                                       NAME/KEY: modified base LOCATION: (3)...(3) OTHER INFORMATION: m5c FEATURE:
                                                                                                                                                         FEATURE:
OTHER INFORMATION: Synthetic oligonucleotide
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Artificial Sequence
                                    OTHER INFORMATION: m5c
NAME/KEY: modified_base
                                                    NAME/KEY: modified_base LOCATION: (10)...(10)
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OTHER INFORMATION: Synthetic oligonuclectide
FEATURE:
NAME/KEY: modified base
LOCATION: (3)...(3)
OTHER INFORMATION: m5c
US-08-738-652-20
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US-08-738-652-20
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                                                                                                                                                                                                                                                                                                                                                                       US-08-738-652-21
                                                                                   SEQ ID NO 21
LENGTH: 20
                                                                                                                                                                                                                                                                                                Patent No. 62v.
Patent No. 62v.
Patent INFORMATION:
Vrieg, A
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Best Local Similarity
Matches 15; Conserv
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LENGTH: 20
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Best Local (
                                                                                                                                     TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
FILE REFERENCE: C1039/7004 HCL
CURRENT APPLICATION NUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
EARLIER FILING DATE: 1994-07-15
EARLIER APPLICATION NUMBER: US 08/386,063
EARLIER FILING DATE: 1995-02-07
NUMBER OF SEQ ID NOS: 55
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CURRENT APPLICATION NUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
EARLIER FILING DATE: 1994-07-15
EARLIER FILING DATE: 1995-02-07
                                                                                                                        NUMBER OF SEQ ID NOS: 55
SOFTWARE: FastSEQ for Windows Version 3.0
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SOFTWARE: FastSEQ for Windows Version 3.0
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ORGANISM: Artificial Sequence
                                           TYPE: DNA ORGANISM: Artificial Sequence
                FEATURE:
OTHER INFORMATION: Synthetic oligonucleotide
   FEATURE:
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Similarity 93.8%;
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Pred. No. 2:
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Pred. No. 2
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; NAME/KEY: modified base
; LOCATION: (18)...(18)
; OTHER INFORMATION: m5c
US-08-738-652-21
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; ORGANISM: SArtificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-286-098-7
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Matches
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APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
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Patent No. 621837
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                                                                                                              SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 8
LENGTH: 20
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LENGTH: 20
                                                                                                                                                               APPLICANT: Wrieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT PILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
ANNUMBER OF SEQ ID NOS: 105
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CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
SOFTWARE: FASTSEQ for Windows Version 3.0
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                                                                           ORGANISM: Artificial Sequence
                                                                                                 TYPE: DNA
NAME/KEY: modified_base
                                      OTHER INFORMATION: Synthetic Sequence
                                                           FEATURE:
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Local Similarity 93.8%;
es 15; Conservation
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93.8%; Pred. No. 2:
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Pred. No. 22;
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US-09-286-098-10
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                                                                                                                                                                Sequence 10, Application US/09286098 Patent No. 6218371
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SEQ ID NO 9
LENGTH: 20
TYPE: DNA
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APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
ITTLE OF INVENTION: Methods and Products for Stimulating
ITTLE OF INVENTION: Immune System Using Immunotherapeutic
ITTLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT FILLING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
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OTHER INFORMATION: Synthetic Sequence
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NAME/KEY: modified base
LOCATION: (3)...(3)
OTHER INFORMATION: m5c
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OTHER INFORMATION: m5c
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Pred. No. 22;
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Pred. No. 2
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PATENT NO: 62103...
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REFERENCE: Cl039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
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US-09-286-098-40
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NUMBER OF SEQ ID NOS: 105
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 10
LENGTH: 20
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Best Local Similarity
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LENGTH: 20
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APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
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EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
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ORGANISM: Artificial Sequence
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Pred. No. 2:
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Pred. No. 22;
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                                                                                  ; MOLECULE TYPE:
US-08-960-774-15
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                           Matches
                                         Query Match
Best Local Similarity
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Best Local (
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 40
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GENERAL INFORMATION:
                                                                                                                                                                               INFORMATION FOR SEQ ID NO:
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OTHER INFORMATION: Synthetic
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                                                                                                                                                                                                                                                                                            CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No. 6239116
FILING DATE: October 30, 1996
CLASSIFICATION: 514
CLASSIFICATION: 514
                                                                                                                                                                                                                       NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 08:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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                                                                                                                                                                    SEQUENCE CHARACTERISTICS
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APPLICATION NUMBER: US/08/960,774
FILING DATE: 30-October-1997
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
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                                                                                                                     TYPE: nucrerostrandedness:
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                                                                                                             TOPOLOGY:
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Pred. No. 22;
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Search completed: January 20, 2004, 17:17:11 Job time : 27.3529 secs

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Minimum DB seq length: 0
Maximum DB seq length: 200000000
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16
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1: /cgn2_6/ptcdata/1/pubpna/US07_PUB

2: /cgn2_6/ptcdata/1/pubpna/US06_NEW

3: /cgn2_6/ptcdata/1/pubpna/US06_NEW
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Listing first 45 summaries
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                                                                     cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq2:*
cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                          6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
6/ptodata/1/pubpna/USO7_NEW_PUB.seq:*
6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                               6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
[6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
[6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
[6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
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6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
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NEW PUB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15	15	16	16	Score	
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US-09-824-468-7	US-10-068-160-8	US-10-194-035-5	US-10-017-995-724	US-10-112-653-697	US-10-194-035-11	US-09-776-479-724	US-09-888-326-188	US-10-194-035-14	US-10-068-160-9	US-10-194-035-7	US-09-738-626-1	US-09-738-626-3346	US-10-068-160-73	US-10-194-035-113	ID	
Sequence 7, Appli	Sequence 8, Appli	5, 1	724,	697,	Sequence 11, Appl	Sequence 724, App	Sequence 188, App	Sequence 14, Appl	Sequence 9, Appli	Sequence 7, Appli	Sequence 1, Appli	Sequence 3346, Ap	Sequence 73, Appl	Sequence 113, App	Description	

RESULT 2

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	•	14.4		14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4		14.4	14.4		14.4	14.4	14.4
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US-09-888-326-102	US-09-888-326-92	9-888-	US-09-415-142-10		US-09-927-422A-22	US-09-920-313-34		US-09-920-313-31	-920-313-	US-09-920-313-8	US-09-920-313-7	US-09-895-007A-34	US-09-895-007A-33	US-09-895-007A-31	US-09-895-007A-9	US-09-895-007A-8	US-09-895-007A-7	-846	US-09-800-266A-34	-09-800-266A-3	US-09-800-266A-31	US-09-800-266A-9	266A-	-26	US-09-824-468-40	-468-	US-09-824-468-10	-69-	US-09-824-468-8
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ALIGNMENTS

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PRIOR APPLICATION NUMBER: 2002-07-12
PRIOR PILING DATE: 2002-07-12
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 113
LENGTH: 16
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                                                                                                                                                   ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 113, Applic
Publication No. US20
GENERAL INFORMATION:
                                                                           Matches
                                                                                           Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: CLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE 4239-6317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
                                                                                                                                                                                          TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                           16;
                        1 ACTCTGGAGCGTTCTC 16
                                                                                                Similarity
ACTOTGGAGCGTTCTC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/10194035
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100.0%; F
ative 0;
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Pred. No. 35;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-738-626-3346/C
                                                                                                                    SOFTWARE: PatentIn ver.
SEQ ID NO 3346
LENGTH: 1125
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SEQ ID NO 73
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 Matches
                                Query Match
                                                                 TYPE: DNA
ORGANISM: Corynebacterium glutamicum
-09-738-626-3346
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Best Local Similarity
                                                                                                                                                                                            PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR FILING DATE: 2000-08-03
                                                                                                                                                                                                                                                                                                         FILE REFERENCE: 249-125
CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: NAKAGAWA, SATOSHI
APPLICANT: MIZOGUCHI, HIROSHI
                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 7059
                                                                                                                                                                                                                                                                                                                                                                TITLE OF
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ORGANISM: Artificial Sequence
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                  Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3346, Application US/09738626 ton No. US20020197605A1
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l Similarity
                                                                                                                                                                                                                                                                                                                                                                INVENTION: NOVEL POLYNUCLEOTIDES
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YOKOI, HARUHIKO
TATEISHI, NAOKO
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93.8%; Score 15; ilarity 100.0%; Pred. No. Conservative 0; Mismatc
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   Mismatches
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                  DB 10; Length 1125;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-194-035-7
; OTHER INFORWATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION INVEST POLYNUCLEOTIDES
FILE REFERENCE: 249-125
FILE REFERENCE: 249-125
CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR FILING DATE: 2000-08-03
PRIOR FILING DATE: 2000-08-03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application US/09738626 Publication No. US20020197605A1
                                                                                                                    SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 7, Application US/10194035 Publication No. US20030144229A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                      APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                                                                                    NUMBER OF SEQ ID NOS: 119
SOFTWARE: PatentIn Ver. 2.1
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NUMBER OF SEQ ID NOS: 7059
                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 60/176,115 PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: PCT/US01/01122 PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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                                                     TYPE: DNA
ORGANISM: Artificial Sequence
                                     FEATURE:
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TATEISHI, NAOKO
SENOH, AKIHIRO
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ANDO, SEIKO
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OCHIAI, KEIKO
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100.0%; Pred. No. 50;
tive 0; Mismatches
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Publication No. US20030144229A1
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                                                                                                                                    SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 14
LENGTH: 17
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Best Local
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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APPLICANT: KLINMAN, Dennis
                                                                                                                                                                                            PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
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NUMBER OF SEQ ID NOS: 120
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-61999
                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: 4239-63317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn version 3.1
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                                                        FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic
                                                                                             ORGANISM: Artificial Sequence
                                                                                                                    TYPE: DNA
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Pred. No. 2.7e+02;
0; Mismatches 1
Score 14.4;
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Pred. No. 2.7e+02;
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DB 13;
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Length 17;
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APPLICANT: Bratzler, Robert L.
APPLICANT: Pottorsen, Deanna M.
APPLICANT: Pouron, Yves
ITILE OF INVENTION: Immunostimulatory Nucleic Acids for the
ITITLE OF INVENTION: Treatment of Asthma and Allergy
ITITLE OF INVENTION: Treatment of Johnson Allergy
ITITLE OF INVENTION: Treatment of Johnson Allergy
ITITLE OF INVENTION: Treatment of Asthma and Allergy
ITITLE OF INVENTION UNMBER: US/09/776,479
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR PILING DATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 724
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 188
LENGTH: 18
TYPE: DNA
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Best Local
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                                          Query Match
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APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
PRIOR FILING DATE: 2000-06-22
                                                                                                                            TYPE DAA
TYPE DAA
ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                          OTHER INFORMATION: Synthetic Sequence
Local Similarity 93.
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o. US20030087848A1
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o. US20030026801A1
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90.0%; Score 14.4; DB 11
93.8%; Pred. No. 2.7e+02;
ative 0; Mismatches 1
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0; Mismatches 1
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Pred. No. 2.7e+02;
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                                        DB 11;
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RESULT 11
US-10-112-653-697
; Sequence 697, Application US/10112653
; Publication No. US20030050268A1
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US-10-194-035-11
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APPLICANT: Krieg, Arthur M.
APPLICANT: Berg, Daniel J.
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Publication No. US20030144229A1
                                                                                      Query Match
Best Local (
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                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES FILE REFERENCE: COLO39/70060 (AWS) CURRENT APPLICATION NUMBER: US/10/112,653 CURRENT FILING DATE: 2002-03-29 PRIOR APPLICATION NUMBER: US 60/279,642 PRIOR PLICATION NUMBER: US 60/279,642 PRIOR FILING DATE: 2001-03-29 NUMBER OF SEQ ID NOS: 1040
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 11
LENGTH: 18
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
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                                                                                                                                                            OTHER INFORMATION: Synthetic Oligonucleotide
                                                                                                                                                                             ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                    TYPE: DNA
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93.8%; Pred. No. 2.7e+02;
tive 0; Mismatches 1;
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US-10-017-995-724
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Matches
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SQ ID NO 724
SEQTI: 18
TYPE: DNA
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Publication No. US20030055014A1
GENERAL INFORMATION:
APPLICANT: Bratzler, Robert L.
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SEQ ID NO 5
LENGTH: 19
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APPLICANT:
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CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids FILE REFERENCE: C1037/7025 (HCL/MAT) CURRENT APPLICATION NUMBER: US/10/017,995 CURRENT FILING DATE: 2001-12-18 PRIOR APPLICATION NUMBER: US 60/255,534 PRIOR FILING DATE: 2000-12-14 NUMBER OF SEQ ID NOS: 1093
                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 119
                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND FILE REFERENCE: 4239-63317
                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
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OTHER INFORMATION: Synthetic Sequence
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VERTHELYI, Daniela
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o. US20030055014A1
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Pred. No. 2.7e+02;
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RESULT 14 US-10-068-160-8 ; Sequence 8, Application US/10068160

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APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/824,468
CURRENT FILING DATE: 2001-04-02
PRIOR APPLICATION NUMBER: US/286,098
PRIOR APPLICATION NUMBER: 09/286,098
PRIOR FILING DATE: 1999-04-02
NUMBER OF SEQ ID NOS: 105
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO
SEQ ID NO
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
OTHER INFORMATION: Synthetic Sequence
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-8
Search completed: January 20, 2004, 17:24:40 Job time: 110.882 secs
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ.ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ.ID NO 8
TENERRY 100
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Best Local Similarity
Matches 15; Conserv
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Best Local Similarity
Matches 15; Conserv
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ORGANISM: Artificial Sequence
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PLICANT: VERTHELYI, Daniela
PLICANT: VERTHELYI, Daniela
ITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
ITLE REFERENCE: 4239-61999
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Maximum Match 100%
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Copyright (c) 1993 - 2004 Compugen Ltd.
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 948 10 BE972956
199 14 CA778499
428 9 AI401438
445 28 AQ472178
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DE972956 601651808
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ALIGNMENTS

FEATURES		COMMENT	TITLE	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION .	ACCESSION		DEFINITION	Locus	BE972956/c	RESULT 1
cDNA Library Preparation: CLONETECH Laboratories, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: LLCM777 row: o column: 01. Location/Qualifiers	Email: cgapbs-r@mail.nih.gov Tissue Procurement: CLONETECH Laboratories, Inc.	Contact: Robert Strausberg, Ph.D.	National Institutes of Health, Mammalian Gene Collection (MGC)	NIH-MGC http://mgc.nci.nih.gov/.	Mammalla; Eutherla; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 948)	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Homo sapiens	Homo sapiens (human)	BST.	BE972956.1 GI:10586292	BE972956	mRNA sequence.	601651808R2 NIH MGC_82 Homo sapiens cDNA clone IMAGE:3935448 3',	BE972956 948 bp mRNA linear EST 04-OCT-2000		

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REFERENCE
AUTHORS
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                                                                                                                                                                                                                                                                                Contact: Steven P. Suchyta
Center for Animal Functional Genomics, Department of Animal Scienc
Michigan State University
B215 Anthony Hall, East Lansing, MI 48824, USA
Tel: 517 355 8443
Fax: 517 432 9168
Email: suchytas@msu.edu
Single Pass sequencing. Bases called and alt-trimmed with phred
v0.0204425.c. Vector identified by cross_match with the -minscore
20 -minmatch 12 options.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center for Animal Functional Genomics.
Generation of ESTs from mixed pig cDNA libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sus scrofa (pig)
Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CA778499.1
EST.
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MPL384 9 H02 MPL Sus scrofa cDNA clone
CA778499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                       Seq primer: T7
                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
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ilarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note=Torgan: pooled; Vector: pSPORT1; Site 1: Not1; Site 2: Sal1; Library made from pooled tissue from adipose adrenal gland, blood leukocytes, brain, cartilage, eye, heart, intestine, kidney, liver, lung lymph nodes, mammary gland, myogenic satellite cells, ovary, pancreas, pituitary gland, placenta, skin, spinal cord, spleen, stomach, tendon, testes, uterus, and vascular from various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C, or G and N = A, C, G, or T). Average insert size 1.35 kb (range 0.9-4.0 kb). 14/15 colonies contained inserts by PCR. This library was enriched for full-length clones and was constructed by Clontech Laboratories (Palo Alto, CA)."
                                                                                                                      /tissue_type="pooled"
/dev_stage="pooled"
/lab_host="DH10B"
                                                                                                                                                                               /organism="Sus scrofa"
/mol_type="mRNA"
/db_xref="taxon:9823"
/clone="pSPORT1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
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                                                                                                          clone
                                                                                                                                                                 sex="Male and female"
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                                                                                                          lib="MPL"
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3', mRNA sequence.
A1401438
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                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                          pregnant uterus"
/lab_host="DH10B"
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       445 bp
       DNA
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Contact: Robert Strausberg, Ph.D.
Email: ggapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the
This Consortium (info@image.llnl.gov) for further information.
Insert Length: 1814 Std Error: 0.00
Sec primary. April 6---- Std.
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                               reaction. The driver was PCR-amplified cDNAs 5,000 clones made from the same 3 libraries. consisted of I.M.A.G.E. clones 260232-265223, 340488-345479, and 484488-489479."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="Soares NhHMPu_S1"
/note="Organ: mixed (see below); Vector: pT7T3D-Pac
/note="Organ: mixed (see below); Vector: pT7T3D-Pac
(Pharmacia) with a modified polylinker; Site_1: Not 1;
Site_2: Eco RI; Equal amounts of plasmid DNA from three
normalized libraries (melanocyte 2NbHM, pregnant uterus
NbHPU, and fetal heart NbHH19W) were mixed, and se circles
were made in vitro. Following HAP purification, this DNA
were used as tracer in a subtractive hybridization

The driver was proposed to the control of the c
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55 c 64 g 46 t
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/db_xref="taxon:9606"
/db_xnee="MAGE:2113526"
/clone="MAGE:2113526"
/tissue_type="Pooled human melanocyte, fetal heart, and
     Score 15; DB; Pred. No. 2.6
DB 9; Le
. 2.6e+03;
ches 0;
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sapiens cDNA clor
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Seq primer: M13 Reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Venter, J.C.
Use of BAC End Sequences from CalTech Libraries for
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Contact: Mahairas GG, Wallace JC, High Throughput Sequencing Center
                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 480)

Mahairas,G.G., Wallace,J.C., Smith,K., Swartzell,S., Holzman,T., Mahairas,G.G., Wallace,J.C., Young,J., Zhao,S., Adams,M.D. au
                                                                                                                                                                                                                                                                                         AQ526058.1 GI:4773378 GSS.
                                                                                                                                                                                                                                                                                                                                            AQ526058
480 bp DNA linear GSS 11-MA:
HS_5309_B1_A12_T7A RPCI-11 Human Male BAC Library Homo sapieno
genomic_clone Plate=885 Col=23 Row=B, genomic survey sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: hbe@tigr.org
Clones are available from Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tel: 301 838 0200
Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Shaying Zhao, William Nierman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
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GSS.
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                                                                                                                  Sequence-tagged connectors: A sequence approach to mapping
                                                                                                                                                                                                                                                                                                                              AQ526058
                                         10449764
                                                                                               scanning the
                                                                                                                                                                                                                                                   Homo sapiens
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                                                                           natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cell_type="sperm"
/clone_lib="CITBI-EI"
/clone_lib="CITBI-EI"
/note="Vector: pBeloBAC11; Site_1:
/note="Vector: pBeloBAC11; Site_1:
CalTech Human BAC Library D"
a 83 c 118 g 107 t
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/mol_type="genomic DNA"
/db_xref="taxon:9606"
/clone="2589E3"
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100.0%; Pred. No. 2.0
tive 0; Mismatches
                                                                             96 (17),
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                                                                               9739-9744 (1999)
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Best Local (
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                                         Division of Biology 156-29
California Institute of Technology
Pasadena California 91125, USA
Tel: (626) 395-8421
Fax: (626) 793-3047
Email: acamerea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
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401 Queen Anne Avenue North, Seattle, WA 98109, USA
Tel: (206) 616-3618
Fax: (206) 616-3687
Email: jwallace@u washington.edu
Clones are derived from the human BAC library RPCI-11. For BAC
Clones are derived from the human BAC library RPCI-11. For BAC
library availability, please contact Pieter de Jourgian
(pieter@dejong.med.buffalo.edu). Clones may be purchased from
BACPAC Resources (http://bacpac.med.buffalo.edu/ordering_bac.htm)
or from Resear h Genetics (info@resgen.com). BAC end Web Server:
                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 495)
Cameron,R.A., Mahairas,G., Rast,J.P., Martinez,P., Biondi,T.R.,
Swartzell,S., Wallace,J.C., Poustka,A.J., Livingston,B.T., Wray
,G.A., Ettensohn,C.A., Lehrach,H., Britten,R.J, Davidson,E.H. ar
                                                                                                                                                                                                                                                                                                                                                                                                                                       Strongylocentrotus purpuratus
Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
Echinoidea; Euechinoidea; Echinacea; Echinoida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A2141640 495 bp DNA linear GSS 28-AUG-: SP_0045_A1_C04_SP6E Strongylocentrotus purpuratus, purple sea urchin, sperm genomic BAC library Strongylocentrotus purpuratus genomic clone Plate=45 Col=7 Row=E, genomic survey sequence.
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                                                                                                                                                                                                                    additional resources
Proc. Natl. Acad. Sc
20402566
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                    Email: acameron@caltech.edu
Plate: 45 row: E column: '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Strongylocentrotus purpuratus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seq primer: T7
Class: BAC ends
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Plate: 885 row: B column: 23
                                                                                                                                                                                                                                                                                                                                                                                                                     Strongylocentrotidae; Strongylocentrotus.
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primer:
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Location/Qualifiers
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/db_xref="taxon:9606"
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0; Mismatches
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2.7e+0;
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AW367384
LOCUS
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ORIGIN
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AW367384.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (http://www.ludwig.org.br/scripts/gethtml2.pl?ti=MR0&t2=MR0-HT0164-191099-002-a04&t3=1999-10-19&t4=1)
Seq primer: puc 18 forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HCGP http://www.ludwig.org.br/ORESTES The FAPESP/LICR Human Cancer Genome Paper FAPESP/LICR HUMAN CANCER HUMA
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1. (bases 1 to 508)
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MRO-HT0164-191099-002-a04 HT0164 Homo sapiens cDNA,
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                                                                                   /dev_stage="Aquit"
/clone lib="HT0164"
/clone lib="HT0164"
/clone lib="HT0164"
/note="Togran: head neck; Vector: puc18; Site_1: SmaI;
/note="Togran: head neck; Vector: puc18; Site_2: SmaI; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."

157 g 115 t 1 others
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                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="unacc.
/db_xref="taxon:9606"
/dev_stage="Adult"
/dev_stage="Adult"
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irchin, sperm genomic BAC library"
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|mal_type="genomic DNA"
|/mal_type="genomic DNA"
|/db xref="ftaxon:7668"
|/clone="plate=45 Col=7 Row=E"
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|mol_type="mRNA"
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Pred. No.
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2.7e+03;
DB 9; L
2.7e+03;
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                                           N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: mmpratt@uga.edu Dr. Yutaka Suzuki and Dr. Sumio Sugano in Library constructed by Dr. Yutaka Suzuki and Dr. Sumio Sugano in the Human Genome Center, University of Tokyo Institute of Medical Science; plant material and RNA prepared at Texas A & M University; sequencing done in the Laboratory for Genomics and Bioinformatics, University of Georgia. Sequence ends have been trimmed to exclude vector and regions below Phree quality 16. Three-prime sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Laboratory for Genomics and Bioinformatics
The University of Georgia, Department of Plant Biology
Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271, USA
Tel: 706 542 1860
Fax: 706 583 0210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
Other_ESTs: HS1_18_E02.g1_A012
Contact: Cordonnier-Pratt MM
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An EST database from Sorghum: heat-shocked seedlings
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sorghum bicolor
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CD205752 S21 bp mRNA linear EST 20-MAY HS1 18 E02.bl A012 Heat-shocked seedlings Sorghum bicolor cDNA clome HS1_18_E02_A012 3', mRNA sequence.

CD205752
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1 (bases 1 to 521)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       are presented as their reverse complement and have been trimmed
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                                                                                                           Similarity
                                           CTCTGGAGCGTTCTC 16
  CTCTGGAGCGTTCTC 349
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                                                                                      Conservative
                                                                                                                                                                                                                                       /clone="HS1 18 E02 A012"
/lab host="HH10B-T1 phage-resistant E. coli"
/lab host="Heat-shocked seedlings"
/clone lib="Weetcor: pME18S-FL3; Site_1: Xh01; Site_2: Xh01; The Inbrary was prepared from polyA+ RNA from 6-day-old seedlings grown in hydroponic culture and heat-shocked at 40-42 C for 4 or 24 hr. After heat shock, roots and leaves were harvested and tissues combined for RNA isolation. Double-stranded cDNA was cloned unidirectionally into different DraIII sites of the pME18S-FL3 vector (5-prime DraIII site is CACTGTGTG, 3-prime DraIII site is CACCATGTGTG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Sorghum bicolor"
/mol_type="mRNA"
/cultivar="IS3620C"
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Pred. No.
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                                                                                    ore 15; DB 14; : red. No. 2.7e+03; Mismatches 0;
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                                                                                                                                Length 521;
                                                                                         Indels
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Buchanan, C.D.,
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                                                                                                                                            EST.
Sus scrofa (pig)
Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: koncz@mpiz-koeln.mpg.de
transgenic cell line was obtained by transformation with the T-DNA
of ppCV6NFHyg Agrobacterium binary vector; the left border junction
of T-DNA insertion 3322e1 was isolated in B. coli after EcoRI
digestion and self-circularization of plant DNA; clone 3322e1
carries a plant DNA fragment of 6.4 kb that extends from an EcoRI
site to the left-border junction of ppCv6NFHyg T-DNA tag; sequences
of the left T-DNA border are excluded from the submission
Class: transposon-tagged.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mathur,J., Szabados,L., Schaefer,S., Grunenberg,B., Lossow,A., Jonas-Straube,E., Schell,J., Konzz,C. and Koncz-Kalman,Z. Gene identification with sequenced T-DNA tags generated by transformation of Arabidopsis cell suspension Plant J. 13 (5), 707-716 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arabidopsis thaliana
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

1 (bases 1 to 544)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.

1 (bases 1 to 555)
Fahrenkrug,S.C., Smith,T.P.L., Freking,B.A., Cho,J., White,J., Vallet,J., Wise,T., Rohrer,G.A., Pertea,G., Sultana,R., Quackenbush, J. and Keele,J.W.
Porcine gene discovery by normalized cDNA-library sequencing and
                                                                                                                                                                                                                                                                                                                                                                                                                                N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AF005835 Arabidopsis thaliana 332-2 Arabidopsis thaliana genomic clone 3322e1 similar to A. thaliana cyclin 3b mRNA with GenBank
                                                                                                                                                                                                                                  BE013283 555 bp
123182 MARC 1PIG Sus scrofa cDNA
BE013283
                                                                                                                                                                                                                   BE013283.1 GI:8274246
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Contact: Koncz C
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/cultivar="Col-1"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                      373312 MARC 2PIG Sus scrofa cDNA 5', BI344753
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12226715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
                                                           Tel: 402 762 4366
Fax: 402 762 4390
Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
v0.980904.e. Vector_identified by cross_match with the -minscore 18
                                                                                                                                                                                                                                                                                              Fahrenkrug,S.C., Smith,T.P.L., Freking,B.A., Cho,J., Whi
Vallet,J., Wise,T., Rohrer,G.A., Pertea,G., Sultana,R.,
                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
1 (bases 1 to 555)
                                                                                                                                                                                                                                                                                                                                                                                       Sus scrofa (pig)
Sus scrofa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore 18
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Fax: 402 762 4390
                                                                                                                                                USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                          BI344753.1
FORWARD: AGGAAACAGCTATGACCAT BACKWARD: GTTTTCCCAGTCACGACG
                                               and -minmatch 12 options.
                                                                                                                                                                                   Contact: Smith TPL
                                                                                                                                                                                                     12226715
                                                                                                                                                                                                                                                    Porcine gene discovery by normalized cDNA-library sequencing and EST cluster assembly
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                             PCR PRimers
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/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: Sall;
/ibrary made from pooled tissue from day 11, 13, 15, 20,
and 30 embryos."
173 c 152 g 95 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Sus scrofa"
/mol_type="mRNA"
/db_xref="taxon:9823"
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lab_host="DH10B"
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Pred. No.
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Sus.
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373307 MARC :
BI344749
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Seq pri
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Fahrenkrug,S.C., Smith,T.P.L., Freking,B.A., Cho,J., Vallet,J., Wise,T., Rohrer,G.A., Pertea,G., Sultana,J., and Keele,J.W.
                                                                                                                                                                                                                                 FORWARD: AGGAAACAGCTATGACCAT
BACKWARD: GTTTTCCCAGTCACGACG
Plate: 120 row: K column: 4
Seg primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                      Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Tel: 402 762 4366
Fax: 402 762 4396
Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
vo.989904.e. Vector identified by cross_match with the -minscore
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15; Conserv
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Larity 100.0%; Pred. No. 2.7e+03;
Conservative 0; Mismatches 0;
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                                                                                                       /organism="Sus scrofa"
/mol type="mRNA"
/db_xref="taxon:9823"
/tissue_type="pooled"
/lab_host="DH10B"
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/note="Vector: pCMV SPORT6; Site 1: Not1; Site 2: Sal1;
Library made from pooled tissue from testis, ovary,
endometrium, hypothalamus, pituitary, and placenta."
endoff c 134 g 110 t 2 others
             /clone_lib="MARC 2PIG"
/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
Library made from pooled tissue from testis, ovary,
endometrium, hypothalamus, pituitary, and placenta."
a 184 c 160 g 93 t
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/lab_host="DH10B"
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/mol_type="mRNA"
/db_xref="taxon:9823"
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ATTTAGGTGACACTATAG.
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Sus scrofa cDNA
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Sultana,R., Quackenbush
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Sus.
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                                                                                                                                                                                                                                                     149
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                                         Gallus gallus (chicken)

Gallus gallus (chicken)

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,

Archosauria, Aves, Neognathae, Galliformes, Phasianidae,
                                                                                                                                                                                                                                                                                  N
                                                                                                                                                                                                                                                                                                               15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 640)
Town, C.D., Van Aken, S., Utterback, T., Koo, H. and Fraser, C.M. Whole genome shotgun sequencing of Brassica oleracea Unpublished
Other_GSSs: BOHFO59TR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Brassica oleracea
Brassica oleracea
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Brassica
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BOHFO59TF BOHF Brassica oleracea
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             Phasianinae; Gallus.
1 (bases 1 to 654)
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Class: sheared ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cdtown@tigr.org
DNA is from a doubled haploid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: 301-838-3523
Fax: 301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Chris Town
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brassica oleracea
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Boardman, P.E., Sanz-Ezquerro, J.,
                                                                                                                  BU106109.1
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                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib="BOHF"
/note="Vector: pHOS1; Site_1: BstXI; 2-3 kb
genomic DNA insertted into pHOS1 using BstXI
a 120 c 141 g 177 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
1. .640
                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:3712"
/clone="BOHFO59"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Brassica ole
/mol_type="genomic DNA"
/strain="TO1000DH3"
                                                                                                                    GI:25308148
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100.0%; Pred. No. 2.7
tive 0; Mismatches
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Pred. No.
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                                                                                                                                                               gallus
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2.8e+03;
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2.7e+03;
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Overton, I.M.,
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                                                                                                                                                                      Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopaida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.

1 (Dases 1 to 698)

Whitelaw,C.A., Quackenbush,J., Van Aken,S., Utterback,T., Resnick,A., Fraser,C.M., Yuan,Y., San Miguel,P., Ma,J. and Bennetzen,J.
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Department of Biomolecular Sciences
University of Manchester Institute of Science and Technology (UMIST
                               9712 Medical Center Drive,
Tel: 301-838-5843
Fax: 301-838-0208
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GSS.
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Tel: 01612008930
                                                                                                                         Other_GSSs: PUFHH39TB
                                                                                                                                        Unpublished
                                                                                                                                                         Maize Genomics Consortium
                                                                                                       Contact: Cathy Whitelaw
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il: whitelaw@tigr.org
primer: TF
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/note="Organ; whole embryo; Vector: pBluescript II KS(+);
Site_1: EcoRI; Site_2: Not1; Modification of pBluescript
II KS(+) [Stratagene] vector to accommodate cDNA produced
with the T-trimmed protocol (Construction of
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/mol_type="mRNA"
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/db_xref="taxon:9031"
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/dev_stage="20-21"
/lab_host="DH10B"
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/note="Vector: pCR4-TOPO; Site_1: EcoRI; 0.6-1.0 kb high
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/strain="B73"
/db_xref="taxon:4577"
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100.0%; Pred. No. 2.8e+03;
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Search completed: January 20, 2004, 18:44:44 Job time : 1032.72 secs

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Pred. No. 8 the number of results predicted by chance to have

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No. 0 0 0 0 0 0 0000 0000 a a a Score 100.0 100.0 100.0 100.0 100.0 91.7 91.7 91.7 91.7 Query Match 1000 1000 100 100 100 100 9 8 몂 AX309558 BD049168 AF499608 AX366390 BD029029 CNS019AV AR238175 AR257716 AR283762 AR300405 AX000393 AX465375 AX547576 AX194418 AX465368 AX104523 AX194425 AX355074 AX505836 HSA301497 E49388 FDI303515 BX248689 AB063270 A06520 AX340879 AX351431 AX192974 LEU58343 BD080181 AX000555 AX000554 AR300404 ALIGNMENTS BD049168 Sequence AR499608 Microbact AR799608 Microbact AR799608 Mepatitis G04342 human STS W US8343 Lignin enri AL111407 Botrytis AR238175 Sequence AR2387716 Sequence AR283762 Sequence AX366390 Sequence AX366390 Sequence AX366390 Sequence AX3192974 Sequence AX3192974 Sequence AX31431 Sequence AX349879 Sequence AX349879 Sequence AX349879 Sequence AX103666 Sequence BX249633 Arabidops A06519 Artificial A06520 Artificial A06520 Artificial A065270 Gallus ga AX505365 Foot-andBX248689 Arabidops E49388 Process for AR208640 Sequence AR208641 Sequence AR300404 Sequence AR300405 Sequence AX000393 Sequence AX000394 Sequence AX000554 Sequence AX000555 Sequence BX000555 Sequence BX000555 Expressio BD080182 Expressio AX309558 Expressio AX309558 Sequence AX194418 Sequence AX465368 Sequence AX104523 Sequence AX194425 Sequence AX465375 Sequence AX547576 Sequence AX030078 Sequence AF395709 Gasterost Description 5 Sequence 1 Expressio 2 Expressio

ORGANISM REFERENCE AUTHORS TITLE JOURNAL	RESULT 1 AX194418 LOCUS DEFINITION ACCESSION VERSION VERSION XEYWORDS
synthetic construct synthetic construct artificial sequences. 1 Rlinman,D., Ishii,K. and Verthelyi,D. Cligodeoxynucleotide and its use to induce an immune response Patent: WO 0151500-A 18 19-UUL-2001; Secretary of the Department of Health and Human Services (US)	AX194418 12 bp DNA linear PAT 28-AUG-2001 Sequence 18 from Patent WO0151500. AX194418 AX194418.1 GI:15385074

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                                                                   Krieg, A.M., Schetter, C. and Vollmer, J.C. Immunostimulatory nucleic acids Patent: WO 0122972-A 715 05-APR-2001; UNIVERSITY OF IOWA RESEARCH FOUNDATION (
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Sequence 102 from Patent
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                                                                                                                                                                  Patent: WO 0197843-A 102 27-DEC-2001; UNIVERSITY OF IOWA RESEARCH FOUNDATION
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Methods for enhancing antibody-induced
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12; Conserv
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Patent: WO 0211761-A 43 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE A
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12; Conserv
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7 c 4 g 6 t
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RESULT 8
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PN JP 2000189180
PD 11-JUL-2000
PF 28-DEC-1999;
                                                                                                             ZAKATAEVA,

PI KAZUO NAKANISHI, VLADIMIR VENIYAMINOVICHI ARYOSHIN, PI E
VIRAJIMIROVICCHI TOROSHIN, IRINA RIVOVUNA TOKUMAKOVA PC
C12N15/09,C12N1/21,C12P13/04//(C12N1/21,C12R1:19),(C12P13/04,
C12R1:19),
PC C12N15/00
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CC CC
RH Key Location/Qualifiers
FT Source 1 38
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1 (bases 1 to 38)

Rivishittsu,V.A., Zakataeva,N.P., Nakanishi,K.,

Toroshin,P.V. and Tokumakova,I.R.

Process for producing L-amino acid

Patent: JP 2000189180-A 8 11-UUL-2000;
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PF 28-DEC-1999 JP 1999373651
PR 30-DEC-1998 RU 98124016,09-MAR-1999 RU
VITARI ARUKAJEVICHI RIVISHITTSU,NATARIYA PAVUROVUNA
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JP 2000189180-A/8
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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/mol type="genomic DNA"
/mb xref="taxon:32630"
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Barratt, D. Graham. and Needham, M. Ronald.
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AR208641
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Barratt, D.Graham.
MCP-1 analogs
                                                                                                                                                                                           Patent: US 6383782-A 13 07-MAY-2002;
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Kara, B.V., Pioli, D., Bundell, K.R. ar
T7 promoter-based expression system
Patent: US 6537779-A 3 25-MAR-2003;
Location/Qualifiers
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Sequence 3 from Patent W09905297
AX000393
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                                          Pioli,D. and Bundell,K.R.
T7 PROMOTER-BASED EXPRESSION SYSTEM
Patent: WO 9905297-A 3 04-FEB-1999;
PIOLI DAVID (GB); ZENECA LTD (GB)
Location/Qualifiers
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Pioli, D. and Bundell, K.R.
T7 PROMOTER-BASED EXPRESSION SYSTEM
PATENT: WO 9995297-A 4 04-FEB-1999;
PIOLI DAVID (GB); ZENECA LTD (GB)
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AAS09575
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•	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	100.0	100.0	100.0	100.0	100.0	100.0	•	•	•	•	•	•	•	•	•	100.0	100.0	100.0	100.0
	262	262	262	257	246	236	207	207	200	186	182	147	114	105	61	31	23	21	449	435	431	431	431	427	421	421	417	375	353	258	254	252	177	88	88	38	20
	24	22	22	25	21	19	24	22	24	24	25	σ	23	22	22	22	21	22	23	24	25	24	22	21	24	21	24	25	24	21	20	24	22	20	20	21	24
	ABV96046	AAI28092	AAK25051	ABX90721	AAC19966	AAV09219	ABS24237	AAK24762	AAD41237	ABZ12726	ABX18882	AAN50295	ABS42271	AAF90441	AAF61495	AAI30598	AAZ88370	AAF95581	AAS92959	ABL37537	ABZ33178	ABK27741	AAI28992	AAC05284	ABN72741	AAA69847	ABN91391	ABX36533	ABN25861	AAC25423	AAX37307	ABN76325	AAL02385	AAX21529	AAX21528	AAA52687	ABL38734
	Human pancreatic c	Probe #18025 for g		Murine gene trappe	Human secreted pro	Human MC proprotei	Human genome-deriv	Human brain expres	Murine neuronal ty	Arabidopsis thalia	Human GDP-mannose	Ligated oligonucle	Human liver single	Human cytokine syn	Leu-hirudin/beta l	Human single nucle .	Oligonucleotide PC	Human gene single	DNA encoding novel	Human colon tumour	Human colon tumour	Human colon cancer	Colon tumour relat	Human secreted pro	Ovarian carcinoma	Human ovarian carc	1000	e EST			Human breast-speci	Human transcriptio				Escherichia coli y	Immunostimulatory

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ALIGNMENTS

CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; 26-SEP-2001 (first entry) Synthetic. AAS09568 standard; DNA; 12 BP. 14-JAN-2000; 2000US-0176115 12-JAN-2001; 2001WO-US01122. Immunoreactive CpG sequence-containing oligonucleotide #18. (USSH) US DEPT HEALTH & HUMAN SERVICES. 19-JUL-2001. WO200151500-A1. Leishmania; Ebola; Anthrax; Listeria; ss.

[mmunostimulatory

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RESULT 2
AAC80598
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Matches 12
                                                                                                                     CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency, biological warfare agent; cytostatic; antiarthritic; antiamicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC80598 standard; DNA; 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 5; Page 30; 48pp; English.
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                                                                                                                                                                                                                                                                                                                                                                             CpG oligodeoxynucleotide, SEQ ID NO:18
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                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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Pred. No. 3e+02;
Mismatches
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                                                                                                                                                                                                                                              protozoal;
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19-OCT-2000

RESULT 3
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ID ABK4
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ABK46446

standard; DNA;

ВP

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CC (AAC8081-C80723). The central Cyg one of the generic sequences 5'-NNNT-CyG-NNNN-3' or CS'-RY-CyG-RY-3'. The central Cyg motif is unmethylated, and the CS'-RY-CyG-RY-3'. The central Cyg motif is unmethylated, and the CS'-RY-CyG-RY-3'. The central Cyg motif is unmethylated, and the CS oligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex comprising the oligonucleotides of the sequence 5'-RY-CyG-RY-3' being able to induce a cell-mediated (T-cell) response or a humoral CC (E-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CyG-RY-3' being able to induce a cell-mediated response, and those CC ells), which then release cytokines, leading to activation of natural CC (E-cells), which then release cytokines, leading to activation of natural CC (E-cells), which then release cytokines, leading to activation of natural CC (E-cells), which then release cytokines, leading to activation of natural CC (E-cells), which then release cytokines, leading to activation of natural CC (E-cells), which then release cytokines, leading to activation of natural CC (E-cells), which then release cytokines, leading to activation of natural CC (E-cells), which then release cytokines, leading to activation of natural cc (Interest), preventing or ameliorating an allergic reaction CC (Interest), food allergies and other alone or in combination with an activated include viral, bacterial, fungal and CC shield arthritis and multiple sclerosis, halfs, leishmania and CC shield arthritis and multiple sclerosis, lateral combination with an anti-cancer agent, is useful for treating colidation of an immune response is used in the CC disp
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long
                                                                                                                                                               Sequence 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 4; Page 27; 46pp;
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                                         1 TGCAGCGTTCTC 12
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                                                                                                                                                             BP; 1 A; 4 C; 3 G; 4 T; 0 other;
                                                                                  Conservative
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Matches 12
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CpG sequence; immune response; non-B cell activation; interferon gamm. IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vaccine for immunising patient against respiratory syncytial epitopes of Paramyxoviridae F protein, and cytosine followed linked by phosphate bond-oligodideoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease;
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
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                                                                                                                Immunoreactive CpG sequence-containing oligonucleotide #25.
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Pred. No. 3e+02;
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RESULT 5
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                                                                                                                                                                                                                                                                                                                                                                          treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczena, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune system deficiencies, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
                                                                                                                                                                                                                                                                                                   Query Match
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Matches 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oligodeoxynucleotides for inducing an immune response to treat au prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences
                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 3 A; 7 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences.
                                                                      12-JUN-2001
                                                                                                         AAF99516;
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schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                               Immunostimulatory nucleic acid #632.
                                                                                                                                            AAF99516 standard;
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                                                                                                                                                                                                                                                                                                                       Similarity
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                                                                      (first
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Pred. No. 2.9e+02;
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                                                                                                                                                                                                                                                                                                                                    Length 20;
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Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;

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RESULT 6
AAC80605
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acid can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunostimulatory; tumour; viral infection; bacterial infection;
fungal infection; parasitic infection; cancer; asthma;
infectious disease; allergy; immune deficiency; phosphorothioate; ss.
CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-SEP-1999; 99US-0156113.
27-SEP-1999; 99US-0156135.
23-AUG-2000; 2000US-0227436.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vaccinating against tumors, infectious diseases, allergies and asthma using immunostimulatory Py-rich and TG nucleic acids -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-SEP-2000; 2000WO-US26383.
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                                                                                                                                                                                                                   14-FEB-2001
                                                                                                                                                                                                                                                       AAC80605;
                                                                                                                                                                                                                                                                                         AAC80605 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immune deficiency. The present sequence can also be used to redirect Th2 to a Th1 immune response and to activate immune cells. Note: the present sequence may have a phosphorothicate backbone.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        invention relates to a method for stimulating an immune
                                                                                                                                                                                  CpG oligodeoxynucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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Pred. No. 2.9e+02;
; Mismatches 0;
                                                                                                                                                                                  SEQ ID
                                                                                                                                                                                    NO:25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 20
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                                                                             protozoal;
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TGCAGCGTTCTC

Matches Query Match Best Local (

12; Similarity

Conservative

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Mismatches

100.0%; 7 C;

Score 12; DB 22; Pred. No. 2.9e+02;

Length 20; Indels

0

Gaps

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Sequence

20

BP; 3

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0 other;

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cc acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural cc killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is cuseful for treating, preventing or ameliozating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonuclectide is administered either alone or in combination with an cc which may be treated include eczema, allergic rhinitis, hayfever, cc writcaria, food allergies and other atopic conditions, and the cc infections which may be treated include viral, bacterial, fungal and cprotozoal infections such as tuberculosis, AIDS, leishmania and cc schistosomiasis. Immune response induction may also be used in the created include viral, bacterial, fungal and created repair attritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an eagent of biological warfare. An immunogenic CpG oligonuclectide, either cc alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in cc antisense therapy and to improve the efficacy of a vaccine. The cc oligonucleotide is preferably administered to lymphocytes ex vivo, cc producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention.
The invention relates to novel immunogenic CpG oligodeoxynucleotides C (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-RY-3'. The central CpG motif is unmethylated, and the C 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the C oligonucleotides optionally have phosphorothioate linkages which make C oligonucleotide delivery complex comprising an oligonucleotide of the C oligonucleotide delivery complex comprising an oligonucleotide of the C invention and a targetting agent, and a pharmaceutical composition CC invention and a targetting agent, and a pharmaceutical composition CC comprising the oligonucleotide delivery complex. The oligonucleotides or a humoral CC are able to induce either a cell-mediated (T-cell) response or a humoral CC (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNMT-CpG-MNNN-3' being able to induce a humoral those of the sequence 5'-NNMT-CpG-MNNN-3' being able to induce a humoral control of the sequence of the sequence 5'-NNMT-CpG-MNNN-3' being able to induce a humoral control of the sequence of the sequence 5'-NNMT-CpG-MNNN-3' being able to induce a humoral control of the sequence 5'-NNMT-CpG-MNNN-3' being able to induce a humoral control of the sequence 5'-NNMT-CpG-MNNN-3' being able to induce and dendritic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent -
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(VERT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 4; Page 28; 46pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-APR-1999;
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RESULT 8
ABK46453
ID ABK4
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Best Local (
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                                                                                                                                                                           tumour growth, tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis, diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, neovascular glaucoma, retrolental fibroplasia, rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque neovascularisation, telangiectasia, haemophiliac joints, angiofibroma, wound gramulation, intestinal adhesions, atherosclerosis, scleroderma and hypertrophic scars. The present sequence is an antiangiogenic nucleic acid of the invention.
                                                                                                                                                                                                                                                                    The invention relates to inhibiting angiogenesis in a subject, comprisi administering at least one antiangiogenic nucleic acid molecule. Also included is a kit comprising a first container housing the antiangiogenic nucleic acids, and instructions for administering them to subject having a condition characterised by unwanted angiogenesis. The method is useful for inhibiting angiogenesis associated with solid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis; diabetic retinopathy; retinopathy of prematurity;
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            ABK46453
                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                     Claim 2;
                                                                                                                                                                                                                                                                                                                                                                         Inhibiting angiogenesis in a subject, involves administering at least one antiangiogenic nucleic acid molecule to the subject
                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-566690/60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-DEC-2000; 2000US-25534P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-JUL-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     myocardial angiogenesis; plaque neovascularisation; telangiectasia; haemophiliac joint; angiofibroma; wound granulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             macular degeneration; corneal graft rejection; neovascular glaucoma;
retrolental fibroplasia; rubeosis; Osler-Webber Syndrome;
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                                                                                                             l Similarity
12; Conserv
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           standard;
                                                                             TGCAGCGTTCTC
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                                                                                                                                                         BP; 3 A;
                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                    32; 276pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PHARM GROUP INC
           DNA;
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                                                                                                                                                         7 C; 4 G; 6 T; 0 other;
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                                                                                                             Score 12; DB 24;
Pred. No. 2.9e+02;
; Mismatches 0;
                                                                                                                                DB 24;
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                                                                                                                                  Length 20;
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Matches
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                                                                                                                                                                                                                                                                                              Sequence
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 WO200197843-A2
                      Synthetic
                                                                                                  16-APR-2002
                                                                                                                        ABL38734;
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The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosline followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
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Paramyxoviridae; F protein; respiratory syncytial virus; RSV;
viral bronchiolitis; pneumonia; infectious pulmonary disease;
bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides
Antibody-induced cell lysis; cancer; immunostimulatory; angiogenesis; metastasis; cytostatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 4; Page 8; 30pp;
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01-SEP-2000; 2000US-229307P.
                                                                                                                                                                                                                                                                   ABL38734 standard; DNA;
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                                                                                        Immunostimulatory
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; 7 C; 4 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 12; DI
100.0%; Pred. No. 2.9
Live 0; Mismatches
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                                                                                        SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0 other;
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hes 0;
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RESULT 10
AAA52687
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XX AAA52
XX AAA52
XX BEChe
XX E. CC
XW PCR E
XX PCR E
XX PCR 101
XX O5-JU
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to methods for treating or preventing cancer, involving administering to a subject having or at risk of developing cancer immunostimulatory nucleic acids that induce expression of cell surface antigens and antibodies. The methods are useful for treating or preventing cancer such as basal cell carcinoma, bladder cancer, bone cancer, brain and central nervous system (CNS) cancer, breast cancer, cervical cancer, colon and rectum cancer, connective tissue cancer, osesphageal cancer, eye cancer, kidney cancer, larynx cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian cancer, stomach cancer, prostate cancer, rhabdomyosarcoma, skin cancer, stomach cancer, testicular cancer, and uterine cancer. The present sequence is an immunostimulatory oligonucleotide described in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Treating or preventing cancer, such as basal cell carcinoma, comprises administering immunostimulatory nucleic acids that induce expression ocell surface antigens and antibodies to a subject having or at risk of
Livshits VA,
                                                                                                                           05-JUL-2000.
                                                                                                                                                                                                                                                                                03-JAN-2001 · (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         developing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-JUN-2000; 2000US-213346P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-JUN-2001; 2001WO-US20154.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-DEC-2001
                                                       30-DEC-1998;
09-MAR-1999;
                                                                                                17-DEC-1999;
                                                                                                                                                                                                                                                      Escherichia coli
                                                                                                                                                                                                                                                                                                            AAA52687;
                                                                                                                                                                                                                                                                                                                                       AAA52687 standard; DNA; 38
                                                                                                                                                                                Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (IOWA ) UNIV IOWA RES FOUND
                          (AJIN ) AJINOMOTO CO
                                                                                                                                                                                                                       coli; yggA gene; amino acid production; excretion protein gene;
                                                                                                                                                                                                           primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sent sequence is an immunostimulat exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ģ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20 BP; 3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hartmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer
                                                                                                                                                                                                             88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 120;
Zakataeva NP,
                                                       98RU-0124016.
99RU-0104431.
                                                                                                99EP-0125263.
                                                                                                                                                                                                                                                    yggA
                           INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              312pp;
                                                                                                                                                                                                                                                      PCR
                                                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
 Nakanishi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 12; DB 24;
Pred. No. 2.9e+02;
                                                                                                                                                                                                                                                      primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                       #2
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Aleshin VV,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 20;
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RESULT 11
AAX21528/c
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Best Local (
                                                                                                                                                                       25-JUL-1997;
25-JUL-1997;
25-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is a PCR primer for the yggA gene (an excretion protein gene) of Escherichia coli. The protein produced from this gene is involved in the production of amino acids, and an increase in its expression leads to an increased accumulation of amino acids in the cell. In this case, an increase in arginine, glutamic acid and lysine is achieved if multiple copies of the gene are transfected into a bacterium.
                                                                                                                                                                                                                                                                                                                                              Monocyte chemoattractant protein-1; MCP-1; analogue; inflammatory; rheumatoid arthritis; glomerular nephritides; lung fibrosis; restenos: alveolitis; asthma; atherosclerosis; psoriasis; hypersensitivity; skii inflammatory bowel disease; multiple sclerosis; brain tumour; stroke;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAX21528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 38 BP; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Increased production comprises increasing
                                                                                                                           Barratt
                                                                                                                                                                                                                                            04-FEB-1999.
                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                        Vector pZT7#3.3
                                                                                                                                                                                                                                                                                                                                                                                                                               13-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAX21528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; Page 17; 29pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-414802/36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tokhmakova
                                                                   ő
                                                                             New analogues of Monocyte Chemoattractant Protein-1 (MCP-1) - useful
                                                                                                    WPI; 1999-142934/12
                                                                                                                                                                                                                    21-JUL-1998;
                                                                                                                                                                                                                                                                 WO9905279-A1
                                                                                                                                                                                                                                                                                                                         PCR
                                                                                                                                                (ZENE )
                                                                                                                                                                                                                                                                                                                                    reperfusion injury; ischemia;
                                                                                                                                                                                                                                                                                                                        primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bacterium used is E.
                                                                                                                                                                                                                                                                                       sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 TGCAGCGTTCTC 12
                                                                                                                          ន្ត
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                ZENECA
                                                                   inflammatory diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCAGCGTTCTC 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                            Needham
                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                       97GB-0015663.
97GB-0015659.
97GB-0015661.
                                                                                                                                                                                                                      98WO-GB02179
                                                                                                                                                                                                                                                                                                                                                                                                       constructing 5-3' oligomer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; 12 C; 10 G; 9 T; 0 other;
                                                                                                                            MRC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of L-amino acids by an Escherichia bacterium the expression amount of an L-amino acid exc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 12; 100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                     myocardial infarction; medicament;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
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                                                                                                                                                                                                                                                                                                                                                                        restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                excretion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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The invention relates to novel analogues ([V9A]MCP1(9-76), [V9G]MCP1 (9-76) and [V9T]MCP1(9-76)) of monocyte chemoattractant protein-1 (M having substitution of an Ala, Gly or Thr for the natural Val at pos

natural Val at position

protein-1 (MCP-1)

Examples; Page 22; 49pp; English.

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RESULT 12
AAX21529
ID AAX22
XX AAX2
AX AAX2
AX Vect
XX Monc
KW Inek
KW Inek
KW INEK
KW PCR
XX WO9!
XX W09!
XX W09!
XX W104-1
XX W104-1
XX W105-1
PF 21-1
XX U04-1
XX U09:
XX U04-1
XX U09:
XX U04-1
XX U09:
XX
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Best Local S
Matches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-JUL-1997;
25-JUL-1997;
25-JUL-1997;
The invention relates to novel analogues ([V9A]MCP1(9-76), [V9G]MCP1(9-76) and [V9T]MCP1(9-76)) of monocyte chemoattractant protein-1 (MCP-1) having substitution of an Ala, Gly or Thr for the natural Val at position 9 of full-length MCP-1. Host cells containing a vector comprising the nucleic acids encoding the analogues are used for recombinant expression of the proteins. MCP-1 is implicated in inflammatory diseases including rheumatoid arthritis, glomerular nephritides, lung fibrosis, restenosis, alveolitis, and asthma, and in athersclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, and brain tumour. An MCP-1 inhibitor may be useful to treat stroke, reperfusion injury, ischemia, myocardial infarction,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9 of full-length MCP-1. Host cells containing a vector comprising the nucleic acids encoding the analogues are used for recombinant expression of the proteins. MCP-1 is implicated in inflammatory diseases including rheumatoid arthritis, glomerular nephritides, lung fibrosis, restenosis, alveolitis, and asthma, and in athersclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, and brain tumour. An MCP-1 inhibitor may be useful to treat stroke, reperfusion injury, isohemia, myocardial infarction, and terminant of the stroke of the s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New analogues of Monocyte Chemoattractant Protein-1 (MCP-1) -to treat inflammatory diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemoattractant protein-1; MCP-1; analogue; inflammatory; rheumatoid arthritis; glomerular nephritides; lung fibrosis; reste alveolitis; asthma; atherosclerosis; psoriasis; hypersensitivity; inflammatory bowel disease; multiple sclerosis; brain tumour; stro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vector pZT7#3.3 constructing 3-5' oligomer #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-142934/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-FEB-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ZENE )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammatory bowel disease; multiple sclureperfusion injury; ischemia; myocardial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               primer; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
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97GB-0015659.
97GB-0015661.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49pp; English.
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Pred.
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RESULT 13
AAL02385
ID AAL02385
ID AAL02385
ID AAL022
XX AAL022
XX Humar
XX Humar
XX Humar
XX Homo
OS Homo
XX O2-AI
XX A2-AI
PR 114-AI
PR 122-AI
PR 22-AI
PR
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Best Local S
Matches 12
                 14-AUG-2000;
22-AUG-2000;
22-AUG-2000;
22-AUG-2000;
23-AUG-2000;
01-SEP-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                         14-AUG-
14-AUG-
14-AUG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-JUL-2000
26-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-JUL-2000
11-JUL-2000
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04-FEB-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-JUN-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JAN-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human reproductive system related antigen cDNA SEQ ID
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2000US-0224519.
2000US-0225213.
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2000US-0216647
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2000US-0229509.
2000US-0229509.
2000US-0229513.
2000US-0230437.
2000US-0231438.
2000US-0231243.
2000US-0231244.
2000US-0231244.
2000US-0231414.

01-SEP-2000 05-SEP-2000 06-SEP-2000 06-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 11-SEP-2000 11-SEP-2000

2000US-0232081.
2000US-0231968.
2000US-0231968.
2000US-0232397.
2000US-0232399.
2000US-0232401.
2000US-0232401.
2000US-0233063.
2000US-0233063.
2000US-0233065.
2000US-0234274.
2000US-0234274.
2000US-0234274.
2000US-0234274.

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RESULT 14
ABN76325;
ID ABN76325;
XX ABN76325;
AC ABN76325;
XX O8-JUL-20
DT O8-JUL-20
XX Human trai
XX Human; OR:
KW disease mu
KW immune mo
KW immune mo
KW angiogene:
KW thromboly
KW behaviour
KW cardiovas:
KW tissue gr:
KW typothyro
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Matches 12
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01-DEC-2000;
01-DEC-2000;
05-DEC-2000;
05-DEC-2000;
06-DEC-2000;
08-DEC-2000;
09-DEC-2000;
09-DEC-2000;
01-DEC-2000;
09-DEC-2000;
Human; ORF; open reading frame; ORFX; drug screening; diagnosis; immune modulation; cytokine; cell proliferation; cell differentiation; immune modulation; haematopoiesis regulation; tissue growth; angiogenesis; activin; inhibin, chemotactic; chemokinetic; haemostatic; thrombolytic; tumour inhibition; bodily characteristic; fertility; behaviour; cancer; proliferative disorder; neurological disorder; cardiovascular disease; immune system disorder; organ transplantation; tissue growth disorder; tissue regeneration disorder; diabetes mellitus; hypothyroidism; cholesterol ester storage disease; infection; vulnerary;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides the protein and coding sequences of number of human reproductive system related antigens. These can be in the prevention and treatment of reproductive system disorders, including cancer. The present sequence is a coding sequence of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-465570/50.
P-PSDB; AAM96415.
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12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                             standard; cDNA;
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2000US-0249216
2000US-0249218
2000US-0249218
2000US-0249244
2000US-0249264
2000US-0249267
2000US-0249297
2000US-0249297
2000US-0249299
2000US-0249299
2000US-025161
2000US-0251030
2000US-02511030
2000US-02511030
2000US-0251186
2000US-02511866
2000US-0251869
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Pred. No.
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29-SEP-2000
29-SEP-2000
29-SEP-2000
02-OCT-2000
03-NOV-2000
04-NOV-2000
08-NOV-2000

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2000US-0241808.
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2000US-0249210.
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2000US-0249211.

vasotropic; antipsoriatic; antidiabetic; cytostatic; nootropic; neuroprotective; antiatheroselerotic; anticoagulant; thrombolytic; cardiant; hypotensive; antithyroid; antiinflammatory; immunomodulator; dermatological; analgesic; virucide; antibacterial; fungicide; gene; s

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WO200190366-A2 Homo sapiens.

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                                                                                                                                                                   neurological disorders such as epilepsy and Alzheimer's disease, cardiovascular diseases, immune system disorders, disorders related to organ transplantation, disorders of tissue growth and regeneration, diseases such as diabetes mellitus, hypothyroidism, and cholesterol ester storage disease, and infectious diseases caused by viral, bacterial, fungal and other pathogens. ORFX nucleic acids may also be used as a source of primers and probes, in the detection of ORFX genomic sequences or transcripts, in the identification and cloning of homologous or transcripts, in genetic diagnosis, and in forensic biology. The ORFX nucleic acids may additionally be used to produce transgenic animals which may be useful for studying the function and/or activity of ORFX protein, and in drug screening. The ORFX proteins may also be used as immunogens to generate specific antibodies, which are useful in the diagnosis, treatment and monitoring of ORFX-associated diseases.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   range of biological activities, such as cytokine, cell proliferation, cell differentiation, immune modulation, hematopoiesis regulation, tissue growth, angiogenesis, activin or inhibin activity, chemotactic/chemokinetic activity, haemostatic activity, thrombolytic activity, receptor/ligand, antiinflammatory activity, tumour inhibition activity, and may also be involved in the determination of bodily characteristics, fertility and behaviour. ORFx proteins, nucleic acids and antibodies may be used in the treatment of cancers, other proliferative disorders such as psoriasis and benign tumours, results of the cancers of the proliferative disorders such as psoriasis and benign tumours,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABN79587 represent cDNAs encoding them. The invention also encompasses polypeptides at least 80% identical to the ORF1-ORF4534 (collectively referred to as ORFX) proteins, polynucleotides at least 85% identical to the ORFX nucleic acid sequences, vectors and host cells comprising ORFX polynucleotides, the recombinant production of ORFX proteins, antibodies specific for ORFX proteins, methods of detecting ORFX polynucleotides and polypeptides, methods of screening for modulators of ORFX expression or activity, and methods of screening individuals for a predisposition to an ORFX-associated disorder. The ORFX proteins of the invention have a wide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel human polypeptides and polynucleotides useful for diagnosing, preventing and treating cardiovascular disease, neurodegenerative, hyperproliferative disorders and disorders related to organ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequences ABP31028-ABP35561 represent 4534 novel human proteins designated ORF (open reading frame) 1-4534, and sequences ABN75054-
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                                                                                                                                                                   Sequence
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Pred. No. 2.5e+02;
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Search completed: January Job time: 74.9412 secs

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                                                                                                                                                                             diagnosing, staging, monitoring, prognosticating, preventing or treating, or determining predisposition to diseases or conditions of the breast, such as breast cancer. AAX37305-X37320 are expressed sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Billing-Medel PA, Co
Gordon J, Granados E
Russell JC, Stroupe
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                                                                                                    Sequence 254
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                                                                                                                                                                                                                                                                                                                                                                                                                   detecting,
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                           Local
                                                                                                                                                                                                                                                            invention describes a novel human breast-specific protein and its encoding nucleic acids are useful
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                                                                                                                                                                                                                                                                                                                                                                                           specific gene BS200 - used to develop products for diagnosing, staging, preventing or treating diseas of the breast, e.g. breast cancer
  Conservative
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                                                                                                                                                          used in the method of the invention.
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Maximum DB seq length: 500
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/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
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/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/BCTUS_COMB.seq:*
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US-09-134-001C-854
US-09-404-879A-157
US-09-318-933-157
US-09-215-681-157
US-09-134-001C-01
US-09-134-001C-01
US-09-174-943-5
US-09-174-943-5
US-09-252-991A-2631
US-09-252-991A-4631
US-09-252-991A-4631
US-08-442-705-5
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US-08-442-705-5
US-08-386-663-13
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US-09-463-458A-13
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Sequence 157, App
Sequence 1044, App
Sequence 5, Appli
Sequence 7, Appli
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Sequence 13, Appl
Sequence 11, Appl
Sequence 12, Appl
Sequence 13, Appl
Sequence 23, Appl
Sequence 23, Appl
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Sequence 35, App	Sequence 17, Appl	Sequence 16, App	Sequence 12, App	Sequence 6, Appl	Sequence 29, Appl	Sequence 14, Appl	Sequence 11, App.	Sequence 6, Appl	Sequence 25, Appl	Sequence 20, App	Sequence 1, Appli	Sequence 35, Appl	Sequence 17, App	Sequence 12, Appl	Sequence 6, Appl:	Sequence 20, Appl	Sequence 28, App
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ALIGNMENTS

RESULT 1 US-09-463-458A-12/c

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Sequence 13, Application US/09463458A
Patent No. 6383782
GENERAL INFORMATION:
APPLICANT: BATTAIL, Derek G
APPLICANT: Needham, Maurice R.C.
TITLE OF INVENTION: MCP-1 ANALOGS
FILE REFERENCE: 1991-186
CURRENT APPLICATION NUMBER: US/09/463,458A
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: PCT/GB98/02179
PRIOR FILING DATE: 1998-07-21
NUMBER OF SEQ ID NOS: 32
SOFTWARE: PatentIN Ver. 2.1
SEQ ID NO 13
LENGTH: 88
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APPLICANT: Barratt, Derek G
APPLICANT: Needham, Maurice R.C.
ITITLE OF INVENTION: MCP-1 ANALOGS
FILE REFERENCE: 1991-186
CURRENT APPLICATION NUMBER: US/09/463,458A
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: PCT/GB98/02179
PRIOR FILING DATE: 1998-07-21
NUMBER OF SEQ ID NOS: 32
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 12
LENGTH: 88
TYPE: DNA
ORGANISM: Artificial Sequence
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US-09-463-458A-13
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OTHER INFORMATION: Description
OTHER INFORMATION: #3
US-09-463-458A-12
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Sequence 4, Application US/09463451
Patent No. 6537779
GENERAL INFORMATION:
APPLICANT: KARA, Buhpendra V.
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GENERAL INFORMATION:
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APPLICATION NUMBER: PCT/GB98/02175
FILING DATE: 21-UUL-1998
APPLICATION NUMBER: GB 9715660.8
FILING DATE: 25-UUL-1997
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MS Word
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/463,451
FILING DATE: 03-Apr-2000
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BUNDELL, Kenneth R.
HOCKNEY, Robert C.
TITLE OF INVENTION: T7 Promoter-Based Expression System
NUMBER OF SEQUENCES: 32
                                                                                                                                                                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: other nucleic acid SEQUENCE DESCRIPTION: SEQ ID NO: 3:
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                                                                                                                                                                                                                                                                                                                                               LENGTH: 88 base pairs
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                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 20005-3918
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Pred. No.
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CURRENT APPLICATION NUMBER: US/09/134,001C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR PILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
SEQ ID NO 854
PRIOR FILING DATE: 1987-08-14
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US-09-134-001C-854/c
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Best Local S
Matches 12
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APPLICANT: Lynn Doucette-Stamm et al
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC-007
                                                              Matches
                                                                              Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 854, Application US/09134001C
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SEQUENCE CHARACTERISTICS:
LENGTH: 88 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                           ORGANISM: Staphylococcus epidermidis
                                                                                                                                                                                  TYPE: DNA
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MS WORD
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/09/463,451
FILING DATE: 03-Apr-2000
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB98/02175
FILING DATE: 21-UUL-198
FILING DATE: 21-UUL-198
APPLICATION NUMBER: GB 9715660.8
FILING DATE: 21-UUL-198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: other nucleic acid SEQUENCE DESCRIPTION: SEQ ID NO: 4:
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: Pillsbury Madison & Sutro, L.L.P.
STREET: 1100 New York Avenue, N.W.
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HOCKNEY, Robert C.
TITLE OF INVENTION: T7 Promoter-Based Expression System
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1 TGCAGCGTTCTC 12
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ZIP: 20005-3918
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100.0%; Pred. No.
tive 0; Mismatch
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100.0%; Pred. No. 44,
tive 0; Mismatches
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US-09-404-879A-157/c
; Sequence 157, Application US/09404879A
; Patent No. 6468546
                                                                                                           US-09-215-681-157/c
; Sequence 157, Application US/09215681A
; Patent No. 6528253
; GENERAL INFORMATION:
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Sequence 157, Application US/09338933
Patent NO. 6488931
GENERAL INFORMATION:
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 157
LENGTH: 421
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SOFTWARE: FASTSEQ fo:
SEQ ID NO 157
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Best Local S
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APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY OF
TITLE OF INVENTION: OVARIAN CANCER
FILE REFERENCE: 210121.462C1
CURRENT APPLICATION NUMBER: US/09/338,933
CURRENT FILING DATE: 1999-06-23
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Frudakis, Tony N.
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR DIAGNOSIS
TITLE OF INVENTION: OF OVARIAN CANCER
FILE REFERENCE: 210121.463
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
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Pred. No.
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Pred No. 40,
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; Sequence 31, Application US/09184418C
; Patent No. 6492110
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US-09-134-001C-1044
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                                  US-09-134-001C-1044
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                                                                                                                       Sequence 1044, Application US/09134001C
Patent No. 6380370
GENERAL INFORMATION:
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: ENCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
TITLE OF INVENTION: DEPLEMBLIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC-007
CURRENT PILLING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR FILING DATE: 1997-11-08
PRIOR FILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/184,418C CURRENT FILING DATE: 1999-11-02 NUMBER OF SEQ ID NOS: 112 SEQ ID NO 31
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Matches 12; Conservative
                                                                                       SEQ ID NO 1044
LENGTH: 417
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Hahn, Beatric
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
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                                       TYPE: DNA ORGANISM: Staphylococcus epidermidis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 291
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
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 91.7%;
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 Score 11;
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Pred. No.
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US-09-174-943-5
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US-09-252-991A-584
                                                                                                                                                                    US-09-252-991A-584
                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS:
SEQ ID NO 584
LENGTH: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 584, Application US/09252991A Patent No. 6551795
GENERAL INFORMATION:
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Matches 11; Conserv
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Best Local
                                                                                         Matches
                                                                                                                           Query Match
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LOCATION: (121)..(324)
-09-174-943-5
                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
PRIOR FILING DATE: 1998-07-27
                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 199-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: MIV-106.01
CURRENT APPLICATION NUMBER: US/09/174,943
CURRENT FILING DATE: 1998-10-19
NUMBER OF SEQ ID NOS: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: METHODS AND REAGENTS FOR ISOLATING BIOLOGICALLY ACTIVE TITLE OF INVENTION: PEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: GYURIS, JENO APPLICANT: MORRIS, AARON J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.0
EQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION:
OTHER INFORMATION:
FEATURE:
                                                                                                                                                                                    TYPE: DNA ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
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                                                                                                             Local
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              271
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I Similarity 100.0%;
11; Conservative (
                                                    2 GCAGCGTTCTC 12
                                                                                                             Similarity
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                                                                                                           91.7%; Score 11; 100.0%; Pred. No.
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Pred. No.
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                                                                                           Mismatches
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1.7e+02;
                                                                                                                               DB 4;
                                                                                                           1.7e+02;
                                                                                                                             Length 435;
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CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 14631
LENGTH. ACC.
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US-09-252-991A-14631/c
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              Sequence 5, Application US/08436714
Patent No. 5602244
GENERAL INFORMATION:
APPLICANT: Marvin H. Caruthers et al
TITLE OF INVENTION: Nucleoside and Polyn
TITLE OF INVENTION: Thiophosphoramidite
NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: AUCCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS:
SEQ ID NO 2053
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Patent No. 655179
                                                                                                                                                                                                                                                                                                                                                 Query Match
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
PRIOR FILING DATE: 1998-07-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC DAND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 444
TYPE: DNA
ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Pseudomonas aeruginosa
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                Local
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11; Conservative 0;
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100.0%; Pred. No. 1.
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Pred. No. 1.7e+
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Gaps

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ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 4.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/436,714
FILING DATE:
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: CU 311 BIGCIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (201)268-1951
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CLARACTERISTICS:
LENGTH: 20 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA
US-08-436-714-5
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Search completed: January 20, 2004, 20:03:12 Job time: 18.8824 secs
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Minimum DB seq length: 0
Maximum DB seq length: 500
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Gapop 60.0 , Gapext 60.0
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/cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
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/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
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cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
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6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
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PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

RESULT 2

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91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	100.0	•	•	100.0	100.0	100.0	•	•	•	100.0	•	100.0	100.0	
285	277	273	262	262	257	236	232	207	200	186	182	163	125	114	31	479	477	477	474	432	432	432	431	431	431	430	430	421	
9	ø	10	15	9	10	14	13	9	14	10	10	13	13	9	9	1	14	13	11	15	14	10	14	10	9	14	13	15	
US-09-294-093B-3827	US-09-294-093B-3863	US-09-974-300-3145	US-10-060-036-1454	US-09-864-761-30235	US-09-728-444-65	US-10-033-067-5	US-09-237-183A-3	US-09-864-761-30187	US-10-005-858-2	US-09-938-842A-531	US-09-878-574-941	US-10-029-386-21784	US-10-029-386-26723	US-09-864-761-30557	US-09-801-274-1086	US-09-918-995-20210	US-10-027-632-267906	US-10-027-632-267906	US-09-918-995-33034	-10-146-502	US-10-046-935-1126	US-09-878-178-1126	US-10-025-380-541	US-09-833-263-541	US-09-922-217-541	US-10-027-632-272428	٠	US-10-198-053-157	
3827,	3863, 1	3145,	•	30235,	Sequence 65, Appl	'n	93,1			Sequence 531, App			Sequence 26723, A	30557,	Sequence 1086, Ap		Sequence 267906,	26790	33034,	1126,	1126,	11	Sequence 541, App	e 54	541	27	272	157,	

ALIGNMENTS

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PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 18
LENGTH: 12
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
밁
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                                                                                                                                                               ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-18
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US-10-194-035-18
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                                                                                Matches
                                                                                                  Query Match
Best Local S
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
                                                                              12;
                                       1 TGCAGCGTTCTC 12
                                                                                                    Similarity
TGCAGCGTTCTC 12
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ISHII, Ken
                                                                              Conservative
                                                                              100.0%; Score 12; DB 13; 100.0%; Pred. No. 3e+02; tive 0; Mismatches 0;
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                                                                                                                        Length 12;
                                                                                Indels
                                                                                0
                                                                                   Gaps
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RESULT 4
US-09-776-479-715
Commence 715, Ap
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-74
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SOFTWARE: Patentin version 3.1
SEQ ID NO 74
                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 102 LENGTH: 20
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Best Local Similarity
Matches 12; Conserv
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Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Methods for Enhancing Antibody-Induced TITLE OF INVENTION: Cell Lysis and Treating Cancer FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
RUMBER OF SEQ ID NOS: 848
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/128,898 PRIOR FILING DATE: 1999-04-12
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LOCATION: (0) ...(0)
OTHER INFORMATION: phosphodiester backbone
                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Synthetic oligonucleotide
                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence FEATURE:
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ORGANISM: Artificial Sequence
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       Application US/09776479
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100.0%; Pred. No. 3e+02;
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Pred. No. 2.8e+02;
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US-10-112-653-688
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         Sequence 688, Application US/10112653 Publication No. US20030050268A1 GENERAL INFORMATION:
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RESULT 5
US-10-194-035-25
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Matches 12
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SEQ ID NO 715
LENGTH: 20
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APPLICANT: Petersen, Deanna M.
APPLICANT: Petersen, Deanna M.
APPLICANT: Fouron, Yves
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION DATE: 2000-02-03
NUMBER OF SEQ. ID NOS: 1093
                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
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TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
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ORGANISM: Artificial
FEATURE:
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                                                                                                                                                                                  FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
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                                                                              h 100.0%; S. Similarity 100.0%; F
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                                                                                                      Score 12;
Pred. No.
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OF HEALTH
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                                  Sequence 2386, Application US/09764891
Publication No. US20030077808A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins,
FILE REFERENCE: PC006
CURRENT APPLICATION NUMBER: US/09/764,891
CURRENT FILING DATE: 2001-01-17
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SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 688
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 715
LENGTH: 20
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Best Local :
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Best Local Similarity
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TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
FILE REFERENCE: C1037/7025 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/10/017,995
CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: US 60/255,534
PRIOR FILING DATE: 2000-12-14
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CURRENT APPLICATION NUMBER: US/10/112,653
CURRENT FILING DATE: 2002-03-29
PRIOR APPLICATION NUMBER: US 60/279,642
PRIOR FILING DATE: 2001-03-29
PRIOR FILING DATE: 2001-03-29
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APPLICANT: Berg, Daniel J.
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
Prior application data removed - NUMBER OF SEQ ID NOS: 10231
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ORGANISM: Artificial Sequence
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Pred. No. 2.8e+02;
; Mismatches 0;
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Pred. No. 2.8e+02;
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Matches 12
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CURRENT FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence Listing Engine
SEQ ID NO 23488
LENGTH: 238
                                                                                                                                          Sequence 6331, Application US/09923876 Patent No. US20020013958A1 GENERAL INFORMATION:
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                                            APPLICANT: Lalgudi, Raghunath V.
APPLICANT: Kamigaki, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
TITLE OF INVENTION: POLYNUCLECTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING
FILE REFERENCE: PL-0012-1 CON
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               CURRENT APPLICATION NUMBER: US/09/923,876
CURRENT FILING DATE: 2001-08-06
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LOCATION: (142)
OTHER INFORMATION: n equals a,t,g,
RIOR APPLICATION NUMBER: 09/298,329
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OTHER INFORMATION:
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ORGANISM: Homo sapiens
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EXPRESSED IN PLACENTA, SIGNAL = 2.1

EXPRESSED IN HEART, SIGNAL = 2.7

EXPRESSED IN HELA, SIGNAL = 2.7

EXPRESSED IN BONE MARROW, SIGNAL = 1.6

EXPRESSED IN FETAL LIVER, SIGNAL = 2.1

EXPRESSED IN ADULT LIVER, SIGNAL = 2.2
                                                                                                                                                                                                                                                                                                                                                                                                                                      EXPRESSED IN BRAIN, SIGNAL = 1.8
SWISSPROT HIT: P01267, EVALUE 5.00e-04
NT HIT: AJ400877.1, EVALUE 0.00e+00
EST_HUMAN HIT: BF526465.1, EVALUE 1.00e-90
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100.0%; Pred. No. 2.:
tive 0; Mismatches
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Pred. No.
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US-09-923-876-6331
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SOFTWARE: PERL Program
SEQ ID NO 6331
LENGTH: 258
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Matches
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PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1998-05-05
NUMBER OF SEQ ID NOS: 6332
SOFTWARE: PERL Program
SEQ ID NO 6331
LENGTH: 258
                                               Sequence 1698, Application US/09960352
Patent No. US20020137139A1
GENERAL INFORMATION:
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GENERAL INFORMATION:
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OTHER INFORMATION: Incyte ID No.
NAME/KEY: unsure
LOCATION: 43, 46
OTHER INFORMATION: a, t, c, g, or
-09-923-876-6331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Kamigaki, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
APPLICANT: Sherman, Bradley K.
TITLE OR INVENTION: POLYNUCLECTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING
FILE REFERENCE: PL-0012-1 CON
CURRENT APPLICATION NUMBER: US/09/923,876
CURRENT FILING DATE: 2001-08-06
PRIOR APPLICATION NUMBER: 09/298,329
PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1999-04-21
PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1998-05-05
APPLICANT: Warren, Wesley C. APPLICANT: Tao, Nengbing APPLICANT: Byatt, John C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Lalgudi, Raghunath V. APPLICANT: Kamigaki, Laura Y. (Ito)
                                                                                                                                                                                                                                                                                                                                   NAME/KEY: unsure LOCATION: 43, 46
                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc feature OTHER INFORMATION: Inc
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ORGANISM: Zea mays
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Pred. No. 2.1e+02;
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Pred. No.
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RESULT 14
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                                                                                                                 Sequence 157, Application US/09884441 Patent No. US20020119158A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: FastSEQ for Windows Version SEQ ID NO 625
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SEQ ID NO 1698
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APPLICANT: Stolk, John A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF COLON CANCER
FILE REFERENCE: 210121.563
CURRENT APPLICATION NUMBER: US/10/066,543
CURRENT FILING DATE: 2002-01-31
APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
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                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 408
TYPE: DNA
ORGANISM: Homo sapiens
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OTHER INFORMATION: Clone ID: 08-LIB3057-008-Q1-K1-B11
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Carter, Darrick
Fanger, Gary R.
Smith, Carole L.
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APPLICANT: Reed Steven G.

APPLICANT: Vedvick, Thomas S.

APPLICANT: Vadvick, Thomas S.

APPLICANT: Hill, Paul

APPLICANT: Hill, Paul

APPLICANT: Albone, Earl

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY

TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.462C8

CURRENT APPLICATION NUMBER: US/09/907,969

CURRENT APPLICATION NUMBER: US/09/907,969

CURRENT FILING DATE: 2001-07-17

NUMBER OF SEQ ID NOS: 596

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 157

LENCTH: 421

TYPE: DNA

ORGANISM: Homo Sapiens

US-09-907-969-157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 157, Application US/09907969
Publication No. US20030091580A1
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
APPLICANT: Fenger, Gary Richard
APPLICANT: Retter, Marc W.
APPLICANT: Reed, Steven G.
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
APPLICANT: Hill, Paul
Search completed: January 20, 2004, 20:51:04 Job time: 80.7647 secs
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SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 157
; LENGTH: 421
; TYPE: DNA
; ORGANIEM: Homo sapien
US-09-884-441-157
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US-09-907-969-157/c
                                                                                                                                                                                    Query Match 100.0%; Score 12; DB 11; Length 421; Best Local Similarity 100.0%; Pred. No. 2e+02; Matches 12; Conservative 0; Mismatches 0; Indels
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                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                        Score
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Gapop_60.0 , Gapext 60.0
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29 CNS04GF1
9 AA165763
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AW011732 ul90f09.x	AW011732	9	309	100.0	12	45
BY26845	BY268459	13	306	00.	12	44
	AW862535	10	306	00.	12	43
EST66	AA357910	9	306	00.	12	42
601220	BE368376	10	305	00.	12	
-	AA328163	9	304	00.	12	
zr81e12	AA256868	9	302	80.	12	
AV364570	AV364570	9	293	00.	12	
D53745 HUM118H10B	D53745	14	290	100.0	12	37
BY156357 BY156357	BY156357	13	290	8	. 12	
BI171742 RE13575.5	BI171742	12	290	8	12	35
T19220 d01011t Tes	T19220	14	289	8	12	34
AA323617 EST26423	AA323617	9	288	00.	12	IJ S
· AV640115 AV640115	AV640115	9	288	00.	12	32
D81567 HUM173E01B	D81567	14	285	8	12	31
AV343188 AV343188	AV343188	9	285	8	12	30
AZ818851 2M0089D11	AZ818851	28	282	8	12	29
BB245376 BB245376	BB245376	10	282	8	12	28
AI505997 vl23h04.x	AI505997	9	278	00.	12	27
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BG214763 RST34417	BG214763	10	272	8	12	25
BZ769276 SALK 1419	BZ769276	29	267	80.	. 12	24
CB884492 Ma1072 Ha	CB884492	14	265	80.	12	23
BE762835 QV3-NT002	BE762835	10	262	8	12	22
BI593750 As L3 04B	BI593750	12	256	8	12	21
BP109757 BP109757	BP109757	12	253	8	12	20
AA532401 nj53e10.s	AA532401	ဖ	251	00.	12	19
BE663022 105343 MA	BE663022	10	247	00.	12	18
AW817473 QV0-ST024	AW817473	9	243	8	12	17
UB28CPAC	BU821792	13	241	8	12	16
	AZ596456	28	238	00.	12	15
ដូ	AW416284	9	237	8	12	14
. 669857 N	CA387791	14	235	8	12	13
K-EST008	BM797505	12	227	80.	12	12
_	3175	10	221	8	12	1
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K-EST013	5491	12	190	8	12	œ
faa36e08	19	13	181	8	12	7
KG0061	924	28	174	8	12	σ
TC3-3E5.	BH194564	28	169	0	12	σ

ALIGNMENTS

AUTHORS	PUBMED	MEDLINE	JOURNAL	TITLE		AUTHORS	REFERENCE					ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION		DEFINITION	LOCUS	CNS04GF1	RESULT 1
Roest Crollius,H., Jaillon,O., Dasilva,C., Ozouf-Costaz,C., Fizames,C., Fischer,C., Bouneau,L., Billault,A., Quetier,F.,	10835645	20296633	using Tetraodon nigroviridis DNA sequence Nat. Genet. 25 (2). 235-238 (2000)	Estimate of human gene number provided by genome-wide analysis	Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F.,	Roest Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C.,	P	Tetradontoidea; Tetraodontidae; Tetraodon.	Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;	Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Tetraodon nigroviridis	Tetraodon nigroviridis	GSS; genome survey sequence.	AL289558.1 GI:8028135	AL289558	semience.	Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone	CNS04GF1 56 bp DNA linear GSS 01-SEP-2000		

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (12-APR-2000) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
                                                                                                                                                                                                                                                              Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubugeisel,S., Kucaba,T., Lacy,M., Le,M., Wartin,J., Worris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.

The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA165763 79 bp mRNA linear EST 12-FEB-1997 m860f12.r1 Stratagene mouse embryonic carcinoma (#937317) Mus musculus cDNA clone IMAGE:615983 5' similar to TR:E93245 E93245 ETN INSERT IN THE FAS APOPTOSIS GENE OF MRL-IPR/IPR. [1] ;, mRNA
                                                                                                                                       Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                          Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence.
AA165763
AA165763.1 GI:1743978
                                                                                                        Email: mouseest@watson.wustl.edu
This clone is available royalty-
                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus
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                                                  Possible reversed clone: similarity on wrong strand
                                                                      MGI:376807
                                                                                     IMAGE Consortium (info@image.llnl.gov)
                                                                                                                                                                                                                                                 Unpublished
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                                 primer: -28ml3 rev1 ET from Amersham
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              quality sequence
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/mol_type="genomic DNA"
/db_xref="taxon:99883"
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Pred. No. 9.1e+02;
); Mismatches 0;
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                                                                                                         royalty-free through LLNL ;
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source
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Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare
, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
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                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
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MR2-BN0114-270400-004-g06_1 BN0114
                                                                                                                                                                         Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=MR2-BN0114-270 400-004-g06_1&t3=2000-04-27&t4=1)
Seq primer: puc 18 forward
High quality sequence stop: 116.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
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                                                                                                                                                        quality sequence stop: 116.
Location/Qualifiers
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                     /mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="BN0114"
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/dev_stage="embryonic"
/lab_host="SOLR (kanamycin_resistant)"
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/db_xref="taxon:10090"
/clone="IMAGE:615983"
                                                                                                         organism="Homo sapiens'
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'note="Organ: breast_normal; Vector: pucl8; Site_1: SmaI;
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Homo sapiens
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Best Local Similarity
"arches 12; Conserv
                                                                                                      BASE COUNT
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340278 BF
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Analysis of bovine mammary gland EST and functional annotation of the Bos taurus gene index

Mamm. Genome 13 (7), 373-379 (2002)
1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                  BACKWARD: GTTTTCCCAGTCACGACG
Plate: 98 row: B column: 5
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: tads@lpsi.barc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Sonstegard TS
USDA, ARS, Beltsville Agricultural Research Center
Bdlg. 200 Rm 2A, Beltsville, MD 20705, USA
Tel: 301 504 8416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sonstegard, T., Capuco, A.V., White, J., Van Tassell, C.P., Cho, J., Sultana, R., Shade, L., Wray, J.E., Wells, K.D. a:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bos taurus
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EST.
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301 504 8414
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                               Conservative
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                                                                                                                                                                                                                          /organism="Bos taurus"
/mol type="mRNA"
/db_xref="taxon:9913"
/tissue_type="pooled"
/lab_host="DH10B"
                                                                                                                 /clone lib="BARC 5BOV"
/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
/ibrary made from pooled mRNA isolated from mammary
tissues at eight physiological, developmental, and disease
states."

a 46 c 36 g 21 t
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                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
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Pred. No. 9.9e+02;
); Mismatches 0;
                                             Score 12; DB 10
Pred. No. 1e+03;
                                 Mismatches
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BH194564/c
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BH759248 174 bp DNA linear GSS 12-MAR-2002 KG00610-3prime Drosophila melanogaster P{SUPOr-P} P element insertion lines Drosophila melanogaster genomic Sequence recovered from 3' end of P element, genomic survey sequence.

BH759248 BH759248.1 GI:19352487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Other_GSSs: TC3-3E5.TP
Contact: Bjorn Andersson
Department of Genetics and Pathology
Uppsala University
Rudbeck Laboratory, SE-751 85, Uppsala, Sweden
Tel: 46 18 471 4808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 169)
Kluge,S., Edwards,K.E., Nilsson,D., Bontempi,E.J., Myler, K., Ghedin,E., El-Sayed,N.M. and Andersson,B.
Clustering and analysis of BAC-end and GSS sequences from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: bjorn.andersson@genpat.uu.se Clones are derived from the Trypanosoma cruzi CL-Brener BAC library TC3. For clone availability, please contact Dr. Bjorn Andersson at Uppsala University (bjorn.andersson@genpat.uu.se).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Trypanosoma cruzi
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Class: BAC ends.
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                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                     30
                                                                                                                                                                                                                                                                                                                                                                           /Glone lib="TC3"
//Glone lib="TC3"
//Glone lib="TC3"
//Glone Typeatla University by Marie-Christine Le Paslier in for Uppsala University by Marie-Christine Le Paslier in the laboratory of Denis Le Paslier at the Centre d'Etude du Polymorphisme Humain (CEPH), Paris, France. Briefly, Trypanosoma cruzi CL-Brener agarose embedded DNA (Obtained from Dr. Franco da Silveira) was partially digested with Hin dIII. High molecular weight fragments were ligated in pBeloBAC11 digested with Hin dIII. The average insert size is 100 kb. Total clone coverage: approx. 33 X the haploid genome."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="genomic DNA"
/strain="CL Brener"
/db_xref="taxon:5693"
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Pred. No. 1e+
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1 (bases 1 to 174)
                                                                                     Clark, M., Johnson, S.L., Lehrach, H., Lee, R., Li, F., Marra, M., Eddy, S., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwoo, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R.
                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Danio.
1 (bases 1 to 181)
                                                                                                                                                                                                                                                                                                   Danio rerio (zebrafish)
Danio rerio
                                                                                                                                                                                                                                                                                                                                                                        BQ419254
BQ419254.1 GI:21124455
                                                                                                                                                                                                                                                                                                                                                                                                                 181 bp faa36e08.yl zebrafish fin day3 r mAGE:5911382 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The P element insertion position is base 1 in the 174 bases. This insertion position refers to the first base of the 8 base target recognition sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence recovery method was inverse PCR.
Sequence orientation is forward strand relative to 5' end of P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Berkeley Drosophila Genome Project
University of California, Berkeley
LSA Building, Berkeley, CA 94720-3200,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Levis,R., Hoskins,R., Liao,G., Mozden,N., Tsang,G., He,Y., Karpen,G., Bellen,H., Rubin,G. and Spradling,A.
The Berkeley Drosophila Genome Project Gene Disruption Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Drosophila melanogaster (fruit fly)
Drosophila melanogaster
                       WashU Zebrafish EST Project 1998
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: gerry@fruitfly.berkeley.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Gerald Rubin
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  Stephen L. Johnson
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/mol_type="genomic DNA"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone lib="Drosophila melanogaster P{SUPor-P} P element
insertion lines"
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100.0%; Pr
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Best Local
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12; Conserv
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Fax: 314 286 1810

Email: zbrafish@watson.wustl.edu

cDNA Library Preparation: Raymond Lee. cDNA Library Arrayed by:
Matthew Clark. DNA Sequencing by: Washington University Genome
Sequencing Center Clone distribution: Genome Systems, St. Louis,
Sequencing Center Clone distribution: Genome Systems, St. Louis,
Missouri (web address: www.genomesystems.com) (email contact:
info@genomesystems.com) and Research Genetics, Huntsville, Alabama
(web address: www.resgen.com) (email contact: info@resga.com) and
                                                                                                                                     Korea Research Institute of Bioscience & Biotechnology 52 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea Tel: +82-42-860-4470 Fax: +82-42-860-4409
                                                                                                                                                                                                                                               Unpublished
Contact: Kim YS
                                                                                                                                                                                                                                                                                                                      Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y.,
Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,
Kim,Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM854919 190
K-EST0137622 S21SNU520 Homo
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                                                                                                                                                                                                                                 Genome Research Center
                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence.
BM854919
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RessourcenZentrumPrimarDatenbank, Berlin, Germany (web address:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Washington University School of Medicine
                                                                                         Email: yongsung@mail.kribb.re.kr
Plate: 58 row: D column: 08
                                                                                                                                                                                                                                                                                                21C Frontier Korean EST Project 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
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Location/Qualifiers
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                                                                    quality sequence stop: 190.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /Glone lib="zebrafish fin day3 regeneration"
/note="Vector: pBK-CMV; Site 1: ECORI; Site 2: XhoI; 1st
strand cDNA primed with (GA) IDACTAGTCTCGAG(T)18, followed
by second strand synthesis, and ligated to 5' adapter (5')
-aattcggcacgag- 3', 3'-gccgtgctc-5'. cDNA was cloned
directionally (ECORI/XhoI) into Stratagene Zap express
lambda phage arms. Mass invivo excision done to obtain
inserts in pBK-CMV phagemid."

1 39 g 32 t
/organism="Homo sapiens"
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/lab_host="E. coli XLOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="IMAGE:5911382"
/sex="mixed male and female"
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                                            ocation/Qualifiers
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7U520-58-D08 5',
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                                                                                                                                              Bonaldo, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

DNA Sequencing by: Washington University Genome
Clone distribution: NCI-CGAP clone distribution
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 222 Std Error: 0.00
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12;
                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 201)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qr24c10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:1941810 3',
                                                                                                               Insert Length: 282 Std Erro
Seg primer: -40UP from Gibco.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                              Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Michael
R. Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            National Cancer Institute, Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGCGTTCTC 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               / CLUME_TOTAL SCANGERY (POCTOR: pTZ18RP1; Site_1: ECORI; / (note="Organ: Stomach; Vector: pTZ18RP1; Site_1: ECORI; Site_2: NotI; The poly (A) + RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped intact mRNA was ligated with DNA-RNA linker including EcoR I site by treatment of T4 RNA ligase and the first strand cDNA was synthesized from oligo dT-selected mRNA by priming with dT-tailed vector. The dT-tailed vector was adjusted to have about 60nt. The cDNA vector was circularized with E. coli DNA ligase after digestion of EcoRI which site is also included in vector. An RNA strand converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of competent cells E. coli T0910F' by electroporation method. The cDNA libraries constructed by this method are full-length enriched cDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gene Index
               /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
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/db_xref="taxon:9606"
/clone="S21SNU520-58-D08"
/clone="IMAGE:1941810"
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_line="SNU-520"
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Pred. No. 1.1e+03;
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RESULT 9 AI203283

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VERSION

CEYWORDS

FEATURES

Query Match Best Local Similarity

100.0%;

Score 12; DB 9; Pred. No. 1.1e+03;

Length 211;

COMMENT

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AI858682
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AUTHORS
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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                                                                                                                                                                                                                                                                                                                                                                       found through the I.M.A.G.E. Consortium/LLNL at: www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 1701 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tissue Procurement: Christopher Moskaluk, M.D., Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                      Seq primer: -40UP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AI858682.1 GI:5512298
                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNA Library Preparation: Life Technologies; Inc.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI_CGAP clone distribution information can be
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                                                    /organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:966"

/clone="IMAGB:2427448"

/clone="IMAGB:2427448"

/clone="IMAGB:2427448"

/lab_host="DH10B"

/lab_host="DH10B"

/clone=lib="NCI_CGAp_Ut1"

/note="Organ: uterus; Vector: pCMV-SPORT6; Site_1: SalI;
Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.75 kb. Life Technologies catalog #:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polylinker; Site_1: Not I; Site_2: Eco RI; Plasmid DNA from the normalized library NCI CGAP GC4 was prepared, and se circles were made in vitro. Following HAP purification, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PCR-amplified cDNAs from a pool of 5,000 clones made from the same library (cloneIDs 1257096-1258631, 1469064-1470983, and 1475592-1476743). Subtraction by Bento Soares and M. Fatima Bonaldo. "
               11538-014"
56 c
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/lab_host="DH10B"
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/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221 bp mRNA linear RCO-MT0059-210600-031-a08 MT0059 Homo sapiens cDNA, BE831758
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence rags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
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1 (bases 1 to 221)
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Seq primer: puc 18 forward
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shotgun sequencing of the human transcriptome with ORF expressed
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: asimpson@ludwig.org.br
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: +55-11-2704922
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                                                                                                                                                                                                                                                                                                                                                          /note="Organ: marrow; Vector: puc18; Site_1: SmaI; Site_2: SmaI; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196, 716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."

83 c 49 g 44 t
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/dev_stage="Adult"
/clone_lib="MT0059"
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|mol_type="mRNA"
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Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
Korea Research Institute of Bioscience & Biotechnology
Korea Research James Yuseong-gu, Daejeon 305-333, South Korea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12;
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1 (bases 1 to 227)

Xim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,K.J., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and Kim,Y.S.

21C Frontier Korean EST Project 2001
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                            Oncorhynchus mykiss
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
1 (bases 1 to 235)
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BM797505
        1 (bases 1 to 235)
Rexroad, C.E. and Keele, J.W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: yongsung@mail.kribb.re.kr
Plate: 77 row: B column: 01
High quality sequence stop: 227.
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                                                                                                                                                                   Oncorhynchus mykiss (rainbow trout)
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//Clone_lib="S22SNU16n1"
//Clone_lib="S22SNU16n1"
//Clone_lib="S22SNU16n1"
//Clone="Organ: Stomach; Vector: pT773-Pac; Site_1: EcoRI;
//Clone="Organ: Stomach; Vector: pT773-Pac; Site_1: EcoRI;
//Clone="Organ: Stomach; Vector: pT773-Pac; National Stomach; Nat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cell_type="Lymphoblast-like"
/cell_line="SNU-16"
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/mol_type="mRNA"
/db_xref="taxon:9606"
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Pred. No. 1.1e+03;
; Mismatches 0;
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mykiss cDNA clone 1RT164L05_B_F03
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EST 06-NOV-2002

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51479 MARC 2PIG Sus scrofa
AW416284
AW416284.1 GI:6944166
EST.
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12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.

1 (bases 1 to 237)
Fahrenkrug, S.C., Smith, T.P.L., Freking, B.A., Cho, J., White, J., Vallet, J., Wise, T., Rohrer, G.A., Pertea, G., Sultana, R., Quackenbush VJ. and Keele, J.W.
Porcine gene discovery by normalized cDNA-library sequencing and Porcins the session of the sequencing and Porcins assembly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: crexroad@ncccwa.ars.usda.gov
Single pass sequencing. Bases called with phred v0.020425.c and
trimmed with the aid of the trim_alt option. Vector identified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USDA, ARS, National Center for Cool and Cold Water Aquaculture 11876 Leetown Road, Kearneysville, WV 25430, USA Tel: 304 724 8340 x2129
Fax: 304 725 0351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sus scrofa (pig)
Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cross_match v0.990329.
Seq primer: AGCGGATAACAATTTCACACAGGA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact:
                                                                                                                                                                                                                                        WSDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Tel: 402 762 4366
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence analysis of a rainbow trout normalized cDNA library
                                                        BACKWARD: GTTTTCCCAGTCACGACG
Plate: 24 row: F column: 6
Seq primer: ATTTAGGTGACACTATAG
                                                                                                                                                                            Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and trimmed with phred
v0.980904.e. Vector identified by cross_match with the -min
                                                                                                                                                                                                                                                                                                                       Contact: Smith TPL
                                                                                                                    FORWARD: AGGAAACAGCTATGACCAT
                                                                                                                                       PCR PRimers
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/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
Library made from pooled tissue from brain, gill, liver,
spleen, muscle, and kidney."
1 63 c 88 g 49 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="1RT164L05_B_F03"
/tissue_type="pooled"
/lab_host="DH10B"
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                                       Location/Qualifiers
/organism="Sus scrofa"
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Pred. No. 1.1e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0409 row: A column: 18
Seq primer: CACACAGGAAACAGCTATGACC
Class: plasmid ends
High quality sequence stop: 238.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           182 TGCAGCGTTCTC 193
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Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacze,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D., Walse,R.

Mouse whole genome scaffolding with paired end reads from 10kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
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238 bp DNA linear GSS 13
1M0409A18R Mouse 10kb plasmid UUGC1M library Mus musculus
clone UUGC1M0409A18 R, genomic survey sequence.
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/clone lib="MARC 2PIG"
/note="Vector: pCMV SPORT6; Site_1: NotI; Site_2: SalI;
/note="Vector: pCMV SPORT6; Site_1: NotI; Site_2: SalI;
/ibrary made from pooled tissue from testis, ovary,
endometrium, hypothalamus, pituitary, and placenta."
a 69 c 67 g 51 t
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to
                                                                                                                                                            /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"/clone lib="Mouse 10kb plasmid UUGCIM library"/note="Vector: PWD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson Laboratory Mouse DNA Resource
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/db_xref="taxon:9823"
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/lab_host="DH10B"
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10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pWh92 (gil4732114|gb|AF129072.1), a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adaptored mouse DNA was annealed to
adaptored vector DNA, and transformed into
chemically-competent E. coli XL10-Gold (Stratagene) cells
and selected for ampicillin resistance."

BASE COUNT
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Query Match
Best Local Similarity 100.0%; Score 12; DB-28; Length 238;
Bast Local Similarity 0; Mismatches 0; Indels 0; Gaps 0;

Search completed: January 20, 2004, 20:01:29 Job time: 736.059 secs

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1 TGCAGCGTTCTC 12 |||||||||| 152 TGCAGCGTTCTC 163

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Title:
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SUMMARIES

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                                                     /organism="synthetic construct"

/mol type="genomic DNA"

/mb_xref="taxon:32630"

/note="Synthetic oligonucleotide-phosphodiester backbone"

/note="4" d g 6 t
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AX547576
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Vaccine against RSV
Patent: WO 0211761-A 43 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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/mol type="genomic DNA"
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/noTe="Synthetic oligonucleotide"
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AJINOMOTO CO INC
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PF 28-DEC-1999
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PI KAZUO NAKANISHI,VLADIMIR VENIYAMINOVICHI ARYOSHIN, PI E
VIRAJIMIROVICCHI TOROSHIN,IRINA RIVOVUNA TOKUMAKOVA PC
C12N15/09,C12N1/21,C12P13/04//(C12N1/21,C12R1:19),(C12P13/04,
C12R1:19),
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Sequence 8 from Patent EP1016710.
AX030078
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PR 30-DEC-1998 RU 98124016,09-MAR-1999 RU
VITARI ARUKAJEVICHI RIVISHITTSU,NATARIYA PAVUROVUNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rivishittsu, V.A., Zakataeva, N.P., Nakanishi, K., Aryoshin, V.V., Toroshin, P.V. and Tokumakova, I.R. Process for producing L-amino acid Patent: JP 2000189180-A 8 11-JUL-2000;
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/db xref="taxon:32630"
/note="primer for amplifying Escherichia coli yggA gene"
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/db_xref="taxon:32630"
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Patent: US 6383782-A 13 07-MAY-2002;
Location/Qualifiers
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Barratt, D. Graham. and Needham, M. Ronald. Charles.
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Barratt,D.Graham. and Needham,M.Ronald.
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Kara, B.V., Pioli, D., Bundell, K.R. ar

T7 promoter-based expression system

Patent: US 6537779-A 3 25-MAR-2003;

Location/Qualifiers

1. 88
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AR300405
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                                          1 (bases 1 to 88)
Pioli, D. and Bundell, K.R.
T7 PROMOTER-BASED EXPRESSION SYSTEM
Patent: WO 9905297-A 3 04-FEB-1999;
PIOLI DAVID (GB); ZENECA LTD (GB)
LOCALION/Qualifiers
                                                                                                                         unidentified
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Kara, B.V., Pioli, D.,
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RESULT 15
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unclassified.

1 (bases 1 to 88)

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77 PROMOTER-BASED EXPRESSION SYSTEM
Patent: WO 9905297-A 4 04-FEB-1999;
PIOLI DAVID (GB); ZENECA LTD (GB)
LOCATION/Qualifiers
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Copyright (c) 1993 - 2004 Compugen
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ALIGNMENTS

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RESULT 1
AAS09568
                                                                                                                                   AAS09568 standard; DNA; 12 BP.
Immunoreactive CpG sequence-containing oligonucleotide #18.
                                             26-SEP-2001 (first entry)
                                                                                        AAS09568;
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; hupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.

Synthetic.

19-JUL-2001. WO200151500-A1.

12-JAN-2001; 2001WO-US01122.

14-JAN-2000; 2000US-0176115.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

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RESULT 2
AAC80598
ID AAC8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 12
                                                                                                                                                                                          CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; natural killer cell; NK cell activation; ecll-mediated immune response; naterion; immune response induction; B-cell response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa. parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            symptoms resulting from exposure multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Klinman
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-442129/47.
                                                        WO200061151-A2
                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAC80598 standard; DNA; 12 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                             antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TGCAGCGTTCTC 12
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12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \mathbf{L}
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12 BP; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ishii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CpG oligodeoxynucleotide, SEQ ID NO:18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                             dermatological;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; 4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 12; DB 22;
Pred. No. 8.8e+02;
; Mismatches 0;
                                                                                                                                                                             phosphorothicate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 12;
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                                                                                                                                                                                                                                                                                                                                     protozoal;
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19-OCT-2000

RESULT 3
ABK46446
ID ABK4
XX

ABK46446

standard; DNA; 12

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CC (AAC8081-C80723). The obliganucleotide are at least 10 bases long (C (AAC8081-C80723). The central Cyg motif is unmethylated, and the coligonucleotide soptionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an coligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex. The oligonucleotides of the sequence 5-NNNT-CyG-WNNN-3' being able to induce a cell-mediated response or a humoral composition that after administration, the oligonucleotide of the sequence 5-NNNT-CyG-WNNN-3' being able to induce a cell-mediated response, and those cots on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural comprisions. It is thought that after administration, the oligonucleotide cells), which then release cytokines, leading to activation of natural cells. A cell-mediated or humoral response can then occur by catevation of T- or B-cells. The induction of an immune response is useful for treating, preventing or amelioraring an allergic conditions of coligonucleotide is administered either alone or in combination with an infection, where an immunogenic Cyg contitions, and the confertions which may be treated include eczena, allergic minitis, hayfever, curicaria, food allergies and other atopic conditions, and the creation of an autoimmune disorder (e.g., lupus erythematosus, with an anti-cancer agent of biological warfare. An immunogenic Cyg capent of biological warfare. An immunogenic Cyg oligonucleotide, either cyg oligonucleotide, either coligonucleotide, sither activated lymphocytes which are then administered to the host. The producing activated lymphocytes which are then administered to the host. The producing activated lymphocytes which are then administered
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                                                                         Query Match
Best Local S
Matches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                    Sequence 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 4; Page 27; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-006880/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (KLIN/) KLINMAN
(ISHI/) ISHII K.
                                                                           12;
                                                                                             Similarity
                    TGCAGCGTTCTC
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                                                                                                                                                      BP; 1 A;
                                                                             Conservative
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                                                                                             100.0%;
                                                                                                                                                      4 C;
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                                                                                                                                                      w
                                                                                                                                                      G; 4 T; 0 other;
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                                                                                               Score 12;
Pred. No. 8
                                                                             Mismatches
                                                                             . 8.8e+02;
                                                                                                                     DB 22;
                                                                                                                   Length 12;
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Best Local S
Matches 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      epitopes
linked by
CpG sequence; immune response; non-B cell activation; interferon gamm IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoinmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhintiti; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vaccine for epitopes of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-AUG-2000; 2000US-224011P.
01-SEP-2000; 2000US-229307P.
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                                                                                                             Immunoreactive CpG sequence-containing oligonucleotide #25.
                                                                                                                                            26-SEP-2001
                                                                                                                                                                                                     AAS09575
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                                                                                                                                                                                                                                                                                                              1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                       12
                                                                                                                                                                                                                                                                                                                                                                                                                                      represents
of the vaco
                                                                                                                                                                                                       standard; DNA;
                                                                                                                                                                                                                                                                                TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or immunising patient against respiratory syncytial virus, has of Paramyxoviridae F protein, and cytosine followed by guanine phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Prince G,
                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       BP; 1 A;
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                                                                                                                                          (first entry)
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                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                      4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Klinman
                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                       3 G;
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                                                                                                                                                                                                                                                                                                                                                           Score 12; DB 24;
Pred. No. 8.8e+02
                                                                                                                                                                                                                                                                                                                                                                                                       4 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CpG oligodideoxynucleotide
                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                       0 other;
                                                                                                                                                                                                                                                                                                                                                         8.8e+02;
                                                                                                                                                                                                                                                                                                                                                                       Length 12;
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                                                 infection;
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                                                                              gamma;
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RESULT 5
AAF99516
ID AAF9
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AC AAF9
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DT 12-J
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DE Immu
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Best Local
                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhintits or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for mimproving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid arthritis and entities infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for cell activation, antibody and interleukin-6 production in a host, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oligodeoxynucleotides for inducing an immune response to treat prevent an allergic reaction, cancer, an autoimmune disorder an symptoms resulting from exposure to bio-warfare agents, compris multiple CpG sequences -
                                                                                                                                                                                                                                                                                                                                                                                                                                                multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania an symptoms resulting from exposure of bio-warfare agent, including Ebola
                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Klinman D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                   AAF99516 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Anthrax and Listeria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (USSH ) US
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                                                                                                                                                                                                                                                                                                                      12;
                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                         TGCAGCGTTCTC 12
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                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                   ₽₽
                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                      Score 12; DB
Pred. No. 9e+
0; Mismatches
                                                                                                                                                                                                                                                                                                                                     9e+02;
                                                                                                                                                                                                                                                                                                                                                       DB 22;
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                                                                                                                                                                                                                                                                                                                      Gaps
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Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;

12-JUN-2001

(first

entry

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Immunostimulatory nucleic acid #632.

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                                                                                                                                                                                                                                                                                                           RESULT 6
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to a method for stimulating an immune response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is staphylococcus, fungal antigens and/or parasitic antigens. The method is staphylococcus, fungal antigens and/or parasitic antigens.
CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoa; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunostimulatory; tumour; viral infection; bacterial infection;
fungal infection; parasitic infection; cancer; asthma;
infectious disease; allergy; immune deficiency; phosphorothioate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vaccinating against tumors, infectious diseases, allergies and asthma using immunostimulatory Py-rich and TG nucleic acids -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-SEP-1999;
27-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-APR-200:
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                                                                                                                                                                                                       14-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-273485/28
                                                                                                                                                                                                                                                                            AAC80605 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 immune deficiency. The present sequence can also be used to redirect a Th2 to a Th1 immune response and to activate immune cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-SEP-2000; 2000WO-US26383.
                                                                                                                                                                        Immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunostimulatory Py-rich and
                                                                                                                                                                                                                                                                                                                                                                                            ۲
                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity
12; Conserv
                                                                                                                                                                                                                                                                                                                                                              9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                          TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                              TGCAGCGTTCTC 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 52; 338pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Schetter C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; 99US-0156113.
; 99US-0156135.
; 2000US-0227436.
                                                                                                                                                                        CpG oligodeoxynucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vollmer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                                                                                                                                                                                                                                                                                               <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                           Score 12; DB 22
Pred. No. 9e+02;
; Mismatches
                                                                                                                                                                        SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                              22;
                                                                                                                                                                        NO:25
                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                      protozoal;
                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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CC (AAC8051-C80723). The obligonucleotide are at least 10 bases long (AAC8051-C80723). The central Cyg motif is unmethylated, and the CY-RY-CyG-RY-3'. The central Cyg motif is unmethylated, and the CO oligonucleotide delivery complex comprising an oligonucleotide delivery complex comprising an oligonucleotide delivery complex comprising an oligonucleotide of the coligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex comprising an oligonucleotide of the comprising the oligonucleotide delivery complex. The oligonucleotide of the comprising the oligonucleotide of the comprising the oligonucleotide of the sequence 5'-RY-CyG-RY-3' being able to induce a cell-mediated (T-cell) response or a humoral comprising the oligonucleotide of the sequence 5'-RY-CyG-RY-3' being able to induce a cell-mediated response, and those comprising that after administration, the oligonucleotide of the sequence 5'-RY-CyG-RY-3' being able to induce a cell-mediated response, and those cells, which then release cytokines, leading to activation of natural complex cells. A cell-mediated or humoral response can then occur by cells, which then release cytokines, leading to activation of natural comprise cells. A cell-mediated or humoral response can then occur by cells of the sequence of the combination of matural comprises. The collegenic cells of the induction of an immunogenic comprise is useful for treating, preventing or ameliorating an allergic reaction cells. A cell-mediated or humoral response can then occur by cells. A cell-mediated or humoral response can then occur by cells. A cell-mediated or humoral response can then occur by cells. A cell-mediated or ameliorating an allergic reaction cells. A cell-mediated or ameliorating an allergic reaction with an allergic reaction with an accordance or in combination with an anti-cancer agent, it ungal and cells response is used in the creating accordance in the cells of the sequence is used in the cells of the cells of the cells of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 4; Page 28; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             symptoms resulting from exposure to a bio-warfare agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Klinman D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antiasthmatic; dermatological; phosphorothioate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-OCT-2000
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e present sequence the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ishii K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0128898
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         O
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TGCAGCGTTCTC

Matches Query Match Best Local

Similarity

Conservative

0

Mismatches

. 9e+02; 0; DB 22;

Length Indels

20;

<u>.</u>

Gaps

0

100.0%;

Score 12; Pred. No. 6 T;

Sequence

20

BP; 3

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7

ü 4 G;

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TGCAGCGTTCTC

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RESULT 7
ABS78231
1D ABS7
ABS78231
1D ABS7
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                                                       RESULT 8
ABK46453
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Χä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to inhibiting angiogenesis in a subject, comprising a daministering at least one antiangiogenic nucleic acid molecule. Also included is a kit comprising a first container housing the antiangiogenic nucleic acids, and instructions for administering them to a subject having a condition characterised by unwanted angiogenesis. The method is useful for inhibiting angiogenesis associated with solid tumour growth, tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis, diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, neovascular glaucoma, retrolental fibroplasia, rubeceis, Osler-Webber Syndrome, myocardial angiogenesis, plaque neovascularisation, telangiectasia, haemophiliac joints, angiofibroma, wound granulation, intestinal adhesions, atherosclerosis, scleroderma and hypertrophic scars. The present construction and antiangiogenic nucleic acid of the invention.
                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth; tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis; diabetic retinopathy; retinopathy of prematurity; macular degeneration; corneal graft rejection; neovascular glaucoma; retrolental fibroplasia; rubeosis; Osler-Weber Syndrome;
                             ABK46453
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 2; Page 32; 276pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Inhibiting angiogenesis in a subject, in one antiangiogenic nucleic acid molecule
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-566690/60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-DEC-2001; 2001WO-US48458.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-JUL-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          myocardial angiogenesis; plaque neovascularisation; telangiectasia;
haemophiliac joint; angiofibroma; wound granulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Angiogenesis inhibitory oligonucleotide #715
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                                                                                                                                                                                                                                                    μ.
                                                                                                                                                                                                                                                                                                              . Similarity 12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                             standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Bp;
                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                      3
A;
                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                      7 C; 4 G; 6 T; 0 other;
                                                                                                                                                                                                                                                12
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                                                                                                                                                                                                                                                                                                           Score 12; DE
Pred. No. 9e+
0; Mismatches
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ile to the subject -
                                                                                                                                                                                                                                                                                                                                        9e+02;
                                                                                                                                                                                                                                                                                                                                                                  DB 24;
                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                     Length 20;
                                                                                                                                                                                                                                                                                                                 Indels
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RESULT 9
ABL38734
ID ABL3
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Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that arre premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of the vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vaccine for immunising patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease;
                                            Antibody-induced cell lysis; cancer; immunostimulatory; CD20; angiogenesis; metastasis; cytostatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 4; Page
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01-SEP-2000; 2000US-229307P.
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Synthetic
                                                                                                                                                                  16-APR-2002
                                                                                                                                                                                                                ABL38734;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-AUG-2001;
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                                                                                                                   Immunostimulatory
                                                                                                                                                                                                                                                               ABL38734 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                                                                  (first entry)
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                                                                                                                   nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Klinman DM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                               ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 12;
Pred. No.
                                                                                                                   SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CpG oligodideoxynucleotide #43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to methods for treating or preventing cancer, involving administering to a subject having or at risk of developing cancer immunostimulatory nucleic acids that induce expression of cell surface antigens and antibodies. The methods are useful for treating or preventing cancer such as basal cell carcinoma, bladder cancer, bone cancer, brain and central nervous system (CNS) cancer, breast cancer, cervical cancer, colon and rectum cancer, connective tissue cancer, cesophageal cancer, eye cancer, kidney cancer, larynx cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, cancer, lung cancer, Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian cancer, stomach cancer, testicular cancer, rhabdomyosarcoma, skin cancer, stomach cancer, testicular cancer, rhabdomyosarcoma, skin cancer, stomach cancer, testicular cancer, and uterine cancer. The present sequence is an immunostimulatory oligomucleotide described in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Treating or preventing cancer, such as basal cell carcinoma, comprise administering immunostimulatory nucleic acids that induce expression cell surface antigens and antibodies to a subject having or at risk c
  Livshits
                                                  30-DEC-1998;
09-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-JUN-2000; 2000US-213346P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-DEC-2001
                                                                                                                                          EP1016710-A2.
                                                                                                                                                                                                                                 Escherichia coli
                                                                                                                                                                                                                                                          03-JAN-2001
                                                                                                                                                                                                                                                                                   AAA52687;
                                                                                                                                                                                                                                                                                                          AAA52687 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-JUN-2001; 2001WO-US20154
                                                                                        17-DEC-1999;
                                                                                                                 05-JUL-2000
                                                                                                                                                                   Escherichia coli.
                          (AJIN ) AJINOMOTO CO
                                                                                                                                                                                                     coli; yggA gene; amino acid production; excretion protein gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ڻ
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                                                                                                                                                                                                                                                                                                                                                                                                TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 120; 312pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                          (first entry)
  Zakataeva NP,
                                                   98RU-0124016.
99RU-0104431.
                                                                                         99EP-0125263
                                                                                                                                                                                                                               yggA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                          INC.
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                                                                                                                                                                                                                               gene
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                                                                                                                                                                                                                                 PCR
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                                                                                                                                                                                                                                                                                                                                                                                                                         0
  Nakanishi
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Pred. No. 9e+02;
; Mismatches 0;
                                                                                                                                                                                                                                 primer #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T; 0 other;
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 Aleshin VV,
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   PV;
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RESULT 11
AAX21528/c
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Best Local S
Matches 12
                                                                                                                                                                                 25-JUL-1997;
25-JUL-1997;
25-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is a PCR primer for the yggA gene (an excretion protein gene) of Escherichia coli. The protein produced from this gene is involved in the production of amino acids, and an increase in its expression leads to an increased accumulation of amino acids in the cell. In this case, an increase in arginine, glutamic acid and lysine is achieved if multiple copies of the gene are transfected into a bacterium.
                                                                                                                                                                                                                                                                                                                                                     Monocyte chemoattractant protein-1; MCP-1; analogue; inflammatory; restenosis, rheumatoid arthritis; glomerular nephritides; lung fibrosis; restenosis; alveolitis; asthma; atherosclerosis; psoriasis; hypersensitivity; skin; inflammatory bowel disease; multiple sclerosis; brain tumour; stroke; reperfusion injury; ischemia; myocardial infarction; medicament;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 38 BP; 7 A; 12 C; 10 G; 9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Increased production comprises increasing
                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAX21528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAX21528 standard; DNA; 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page 17; 29pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tokhmakova
                                           Examples; Page 22; 49pp; English.
                                                                    New analogues of Monocyte Chemoattractant Protein-1 (MCP-1) - useful
to treat inflammatory diseases
                                                                                                                                   Barratt
                                                                                                                                                                                                                                   21-JUL-1998;
                                                                                                                                                                                                                                                           04-FEB-1999.
                                                                                                                                                                                                                                                                                   WO9905279-A1
                                                                                                                                                                                                                                                                                                                                              PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                 Vector pZT7#3.3
                                                                                                                                                                                                                                                                                                          iomo sapiens
                                                                                                                                                           (ZENE )
                                                                                                                                                                                                                                                                                                                                              primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bacterium used is E.
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                                                                                                           1999-142934/12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                   Needham
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                 97GB-0015663.
97GB-0015659.
97GB-0015661.
                                                                                                                                                            LID.
                                                                                                                                                                                                                                   98WO-GB02179
                                                                                                                                                                                                                                                                                                                                                                                                                               constructing 5-3' oligomer
                                                                                                                                    MRC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of L-amino acids by an Escherichia bacterium the expression amount of an L-amino acid exc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             coli
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 12;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9.2e+02;
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The invention relates to novel analogues ([V9A]MCP1(9-76), [V9G]MCP1 (9-76) and [V9T]MCP1(9-76)) of monocyte chemoattractant protein-1 (MCP-1) having substitution of an Ala, Gly or Thr for the natural Val at position

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RESULT 12
RAX21529
ID AAX21
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AAX21529
ID AAX21
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AAX21
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AAX21
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The invention relates to novel analogues ([V9A]MCP1(9-76), [V9G]MCP1 (9-76) and [V9T]MCP1(9-76)) of monocyte chemoattractant protein-1 (MCP-1) having substitution of an Ala, Gly or Thr for the natural Val at position 9 of full-length MCP-1. Host cells containing a vector comprising the nucleic acids encoding the analogues are used for recombinant expression of the proteins. MCP-1 is implicated in inflammatory diseases including rheumatoid arthritis, glomerular nephritides, lung fibrosis, restenosis, alveolitis, and asthma, and in athersclerosis, psoriasis, delayed-type hypersensitivity reactions of the skin, inflammatory bowel disease, multiple sclerosis, and brain tumour. An MCP-1 inhibitor may be useful to treat stroke, reperfusion injury, ischemia, myocardial infarction,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    alveolitis; asthma; atherosclerosis; inflammatory bowel disease; multiple reperfusion injury; ischemia; myocard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-142934/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUL-1997;
25-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Monocyte chemoattractant protein-1; MCP-1; analogue; inflamma rheumatoid arthritis; glomerular nephritides; lung fibrosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vector pZT7#3.3 constructing 3-5' oligomer #4.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ZENE ) ZENECA
                                                                                                                                                                                                                                                                                                                                                                                                                                      analogues of Monoc
treat inflammatory
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12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                            of Monocyte Chemoattractant ammatory diseases
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97GB-0015659.
97GB-0015661.
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                                                                                                                                                                                                                                                                                                                                                                                  22; 49pp; English.
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     psoriasis; hypersensitivity; skin; sclerosis; brain tumour; stroke;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 20;
9.5e+02;
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RESULT 13
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ID AAL02
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Best Local S
Matches 12
                                                                         11-JUL-2000

11-JUL-2000

14-JUL-2000

26-JUL-2000

14-AUG-2000

11-AUG-2000

11-AU
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19-MAY-2000;
07-JUN-2000;
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07-JUL-2000;
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17-MAR-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-JAN-2001;
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2000US-0179065
2000US-018628
2000US-0186350
2000US-0188153
2000US-0198173
2000US-0198173
2000US-0205415
2000US-0214886
2000US-0214886
2000US-0214887
2000US-0214887
2000US-0214887
2000US-0214887
2000US-0214889
2000US-0217487
2000US-0225963
2000US-022551
2000US-0225268
2000US-0225268
2000US-0225268
2000US-0225277
2000US-0225268
2000US-022577
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2000US
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01-SEP-2000 05-SEP-2000 06-SEP-2000 06-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 08-SEP-2000 112-SEP-2000 114-SEP-2000 114-SEP-2000 114-SEP-2000

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RESULT 14
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Best Local S
Matches 12
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17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
01-DEC-2000;
01-DEC-2000;
05-DEC-2000;
05-DEC-2000;
06-DEC-2000;
06-DEC-2000;
08-DEC-2000;
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17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
Human; ORF; open reading frame; ORFX; drug screening; diagnosis; disease monitoring; cytokine; cell proliferation; cell differentiation; immune modulation; haematopoiesis regulation; tissue growth; angiogenesis; activin; inhibin; chemotactic; chemokinetic; haemostatic; thrombolytic; tumour inhibition; bodily characteristic; fertility; behaviour; cancer; proliferative disorder; neurological disorder; cardiovascular disease; immune system disorder; organ transplantation; tissue growth disorder; tissue regeneration disorder; diabetes mellitus; hypothyroidism; cholesterol ester storage disease; infection; vulnarary.
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ABN76325
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is used i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention provides the protein and coding sequences o number of human reproductive system related antigens. These can be in the prevention and treatment of reproductive system disorders, including cancer. The present sequence is a coding sequence of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18
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P-PSDB; AAM96415.
                                                                                                                                                                                                                           Human
                                                                                                                                                                                                                                                                      08-JUL-2002
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12; Conserv
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                                                                                                                                                                                                                                                                                                                                                           standard; cDNA;
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nilarity 100.
Conservative
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2000US-0249244

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2000US-0249297

2000US-0249297

2000US-0249297

2000US-0250391

2000US-0251030

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2000US-0251030

2000US-0251868

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2000US-0251869

2000US-0251869
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                                                                                                                                                                                                                           factor-like ORF1272 cDNA,
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Pred. No.
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thes 0;
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-0236368 -0236379 -0236370 -023637037 -0237037 -0237038 -0237038 -0237039 -0239335 -0239335

-0240960. -0241221. 14-SEP-2000; 21-SEP-2000; 21-SEP-2000; 25-SEP-2000; 25-SEP-2000; 26-SEP-2000; 27-SEP-2000;

2000US-0235484. 2000US-0235834. 2000US-0235836. 2000US-0236327. 2000US-0236367.

29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
20-CCT-2000;
20-NOV-2000;
20-NOV-2000;
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20-CCT-2000;
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20-NOV-2000;
217-NOV-2000;

2000US-0241786 2000US-0241787 2000US-0241809 2000US-0246174 2000US-0246474 2000US-0246477 2000US-0246477 2000US-0246477 2000US-0246477 2000US-0246477 2000US-0246523 2000US-0246523 2000US-0246526 2000US-0246527 2000US-0246611 2000US-0246611 2000US-0249207 2000US-0249207 2000US-0249208 2000US-0249208 2000US-0249211 2000US-0249211 2000US-0249211 2000US-0249211 2000US-0249211 2000US-0249211 2000US-0249211 2000US-0249211 2000US-0249211

neuroprotective; antiatherosclerotic; anticoagulant; thrombolytic; cardiant; hypotensive; antithyroid; antiinflammatory; immunomodulator; dermatological; analgesic; virucide; antibacterial; fungicide; gene; ss.

vasotropic; antipsoriatic; antidiabetic; cytostatic; nootropic;

WO200190366-A2 Homo sapiens.

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                                                                                                                                                     CC designated ORF (Open reading frame) 1-4534, and sequences ABN75054-CC ABN79557 represent cDNAs encoding them. The invention also encompasses CC polypeptides at least 80% identical to the ORF1-ORF4534 (collectively CC referred to as ORFX) proteins, polymucleotides at least 85% identical to the ORF1-ORF4534 (collectively CC PORFX nucleic acid sequences, vectors and host cells comprising ORFX CC polymucleotides, the recombinant production of ORFX proteins, antibodies Sepecific for ORFX proteins, methods of detecting ORFX proteins, antibodies at cellvity, and methods of screening for modulators of ORFX expression or CC ORFX-associated disorder. The ORFX proteins of the invention have a wide CC range of biological activities, such as cytokine, cell proliferation, CC tissue growth, angiogenesis, activin or inhibit activity, chemotactic/CC chemokinetic activity, haemostatic activity, tumour inhibition activity, cand antiinfactive activity, tumour inhibition activity, cand intinflammatory activity, tumour inhibition activity, composition of bodily characteristics, fertility and behaviour. ORFX proteins, CC uncleic acids and antibodies may be used in the treatment of cancers, CC other proliferative disorders such as sporiasts and benign tumours; CC uncleic acids and antibodies may be used in the treatment of carcers, CC other proliferative disorders such as sporiasts and benign tumours; CC cardiovascular diseases, immune system disorders, disorders related to cyan transplantation, disorders of tissue growth and regeneration, CC diseases such as diabetes mellitus, hypothyroidism, and cholesterol ester storage disease, and infectious diseases growth and regeneration.

CC diseases such as diabetes mellitus, hypothyroidism, and cholesterol ester storage disease, and infections and also be used as a course of primers and probes, in the detection of ORFX peromic sequences or transcripts, in the identification and cloning of homologous sequences are diseases, and in forensic biology. The ORFX captoriated diseases, and in ma
                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel human polypeptides and polynucleotides useful for diagnosing, preventing and treating cardiovascular disease, neurodegenerative, hyperproliferative disorders and disorders related to organ transplantation
                                                                                                                                                     Sequence
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                                                                                         Local
 195
                                                                       l Similarity
12; Conserv
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                                                                   Score 12; DB 24;
Pred. No. 9.9e+02;
Mismatches 0;
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Search completed: January Job time: 76.8235 secs

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2004,

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RESULT 15
AAX37307/c
                                            Best
                     Query Match
                                                                                                                                                                   New breast detecting, conditions
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Gordon J, Granado
Russell JC, Strov
                                                                diagnosing, staging, monitoring, prognosticating, preventing or treating, or determining predisposition to diseases or condition breast, such as breast cancer. AAX37305-X87320 are expressed set tags (EST's) used in the method of the invention.
                                                                                                           This invention describes a novel human breast-specific This protein and its encoding nucleic acids are useful
                                                                                                                                                                                                                                                                                                                                                                                                                   Breast; cancer; BS200; EST; expressed sequence tag; human; detection; diagnosis; prevention; treatment; disease predisposition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAX37307 standard; DNA;
                                           Sequence
                                                                                                                                            Claim 1b; Page 108; 124pp; English.
                                                                                                                                                                                                                                                                                                       07-JUL-1997;
                                                                                                                                                                                                                                                                                                                             07-JUL-1998;
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                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                  (ABBO ) ABBOTT LAB.
           Local
12;
          Similarity
                                            254
                                                                                                                                                                 specific gene BS200 - used to develop products for diagnosing, staging, preventing or treating disease of the breast, e.g. breast cancer
                                                                                                                                                                                                                                               del PA, Cohen
Granados EN,
Conservative
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                                            A; 67 C;
                100.0%;
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           Score 12;
Pred. No.
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 Mismatches
                                          46 T;
          9.9e+02;
                                            0 other;
                      DB 20;
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                                                                                                             protein BS200.
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Copyright

Sequence Sequence Sequence Sequence

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Total number of hits satisfying chosen parameters:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                is the number of results predicted by chance to have a ater than or equal to the score of the result being printed, rived by analysis of the total score distribution.
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/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6A_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
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   US-09-463-458A-12
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APPLICANT: Needham, Maurice R.C.

APPLICANT: Needham, Maurice R.C.

TITLE OF INVENTION: MCP-1 ANALOGS

FILE REFERENCE: 1991-186

CURRENT APPLICATION NUMBER: US/09/463,458A

CURRENT FILING DATE: 2000-01-27

PRIOR APPLICATION NUMBER: PCT/GB98/02179

PRIOR PILING DATE: 1998-07-21

NUMBER OF SEQ ID NOS: 32

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 12

LENGTH: 88

TYPE: DNA

ORGANISM: Artificial Sequence
   GENERAL INFORMATION:

APPLICANT: Barratt, Derek G

APPLICANT: Needham, Maurice R.C.

TITLE OF INVENTION: MCP-1 ANALOGS

FILE REFERENCE: 1991-186

CURRENT APPLICATION NUMBER: US/09/463,458A

CURRENT FILING DATE: 2000-01-27

PRIOR APPLICATION NUMBER: PCT/GB98/02179

PRIOR PILING DATE: 1998-07-21

NUMBER OF SEQ ID NOS: 32

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 13

LENGTH: 88
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; OTHER INFORMATION: Description
; OTHER INFORMATION: #3
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US-09-463-458A-13
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US-09-252-991A-12753

US-09-252-991A-14752

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Minimum

seq length: 0
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Post-processing: Minimum Match 0% Maximum Match 100%

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Title: Perfect score:

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36, Ap 12976, 270, A 115, A

Appl Appl

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RESULT 4
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MEDIUM TYPE: Floppy disk

COMPUTER: IEM PC compatible

COMPUTER: IEM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: MS WORD

CURRENT APPLICATION NUMBER: US/09/463,451

FILING DATE: 03-Apr-2000

CLASSIFICATION NUMBER: PCT/GB98/02175

PRIOR APPLICATION DATA:

APPLICATION NUMBER: PCT/GB98/02175

PRIOR APPLICATION NUMBER: GB 9715660.8

FILING DATE: 25-JUL-1997

INFORMATION FOR SEQ ID NO: 3:

INFORMATION FOR SEQ ID NO: 3:

INFORMATION FOR SEQ ID NO: 3:
Sequence 4, Application US/09463451
Patent No. 6537779
GENERAL INFORMATION:
APPLICANT: KARA, Buhpendra V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application Patent No. 6537779
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BUNDELL, Kenneth R.
HOCKNEY, Robert C.
TITLE OF INVENTION: T7 Promoter-Based Expression System
NUMBER OF SEQUENCES: 32
                                                                                                                                                                                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: other nucleic acid SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 88 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: KARA, Buhpendra V.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/09463451
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
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                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                           100.0%; Score 12; DB 4;
100.0%; Pred. No. 1.1e+02;
tive 0; Mismatches 0;
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Pred. No. 1.1e+02;
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Matches
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Best Local
                                                                                                                                                             TYPE: DNA
1 TGCAGCGTTCTC 12
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ORGANISM: Staphylococcus epidermidis US-09-134-001C-854
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: NUCLEIC ACID AND THERAPEUTICS
FILE REFERENCE: GTC-007
CURRENT APPLICATION NUMBER: US/09/134,001C
CURRENT FILING DATE: 1998-08-13
FRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR PILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
SEQ ID NO 854
LENGTH: 417
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COMPUTER: IBM PC COMPATIBLE
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MS WOO'
CURRENT APPLICATION NUMBER: US/09/463,451
PILLING DATE: 03-Apr-2000
CLASSIFICATION : Unknown>
PRIOR APPLICATION NUMBER: PCT/GB98/02175
PILING DATE: 21-UU-1998
APPLICATION NUMBER: GB 9715660.8
PFILING DATE: 25-UUL-1997
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 88 base pairs
TYPE: nucleic acid
STRANDEDNESS: Single
MOLECULE TYPE: other nucleic acid
SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No. 6380370 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 854, Application US/09134001C
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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ADDRESSEE: Pillsbury Madison & Sutro, L.L.P.
STREET: 1100 New York Avenue, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BUNDELL, Kenneth R.
HOCKNEY, Robert C.
TITLE OF INVENTION: T7 Promoter-Based Expression System
NUMBER OF SEQUENCES: 32
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l Similarity
12; Conserva
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  Conservative
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                    100.0%; Score 12; DB 4; 100.0%; Pred. No. 1.2e+02;
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100.0%; Pred. No. 1.:
tive 0; Mismatches
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TGCAGCGTTCTC 145

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US-09-404-879A-157/c
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; Patent No. 6468546
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; Sequence 157, Application US/09338933
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                                                                                                                                                                                     RESULT 8
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Sequence 157, Application US/09215681A
PATENT NO. 6528253
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Frudakis, Tony N.
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR DIAGNOSIS
TITLE OF INVENTION: OF OVARIAN CANCER
FILE REFERENCE: 210121.463
                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 312
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 157
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APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
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Best Local
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SOFTWARE: FastSEQ fo:
SEQ ID NO 157
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Best Local :
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CURRENT APPLICATION NUMBER: US/09/338,933
CURRENT FILING DATE: 1999-06-23
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
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APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY OF
TITLE OF INVENTION: OVARIAN CANCER
                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapien
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Pred. No. 1
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Pred. No. 1.
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SEQ ID NO 196
LENGTH: 658
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(658)
OTHER INFORMATION: n = A,T,C or G
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US-09-252-991A-12313/c
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APPLICANT: Monahan, John E.

APPLICANT: Monahan, John E.

APPLICANT: MONAHAN, JOHN E.

APPLICANT: MONEL HUMAN GENES AND GE
TITLE OF INVENTION: NOVEL HUMAN GENES AND GE
TITLE OF INVENTION: PRODUCTS
FILE REFERENCE: CCD-257 (US)
FULE REFERENCE: CCD-257 (US)
FULE REFERENCE: CCD-257 (US)
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APPLICANT: Steinmann, Kathleen E.
APPLICANT: Astle, Jon H.
APPLICANT: Burgess, Christopher C.
APPLICANT: Bushnell, Steven E.
APPLICANT: Carroll III, Eddie
APPLICANT: Catino, Theodore J.
                                                                                                            Sequence 12313, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
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LENGTH: 421
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CURRENT FILING DATE: 1998-12-17
NUMBER OF SEQ ID NOS: 310
SOFTWARE: FastSEQ for Windows Version 3.0
APPLICANT: MARC J. RUBENFIELD et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
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ORGANISM: Homo sapien
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Similarity 100.0%;
12; Conservative 0;
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Similarity 100.0%; Pred. No. 1.3e+02;
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Pred. No. 1.2e+02;
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RESULT 11
US-08-393-985-22/c
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                                                            US-08-393-985-22
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Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative 0;
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LENGTH: 732
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Patent No. 5693476
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Pseudomonas aeruginosa
;-09-252-991A-12313
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18 PRIOR APPLICATION NUMBER: US 60/094,190 PRIOR FILING DATE: 1998-07-27 NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                                 TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
LENGTH: 790 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                        NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 86(15)
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
                                                                                                                                                            MOLECULE TYPE: CD
                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                     FEATURE:
                                                                                                                                 ORIGINAL SOURCE:
                                                                                                                                                           HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Dehlinger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                               ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
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                                                                                          NAME/KEY:
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                                                                                                                  INDIVIDUAL ISOLATE:
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                                                                        LOCATION:
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1 Similarity 100.0%;
12; Conservative 0
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350 Cambridge Avenue, Suite 250
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2.,790
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                                                                                                                                                                             cDNA to mRNA
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                                                                                                                  Cytoplasmic domain of
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pred. No. 1.3e+02;
pred. No. 0;
   Score 12; DB 1; Length 790; Pred. No. 1.3e+02; Indels
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US-08-393-985-1/c
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                                                                                                                      US-09-252-991A-12363/c
                                                                                                                                        RESULT 13
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US-08-393-985-1
         Sequence 12363, Application US/09252991A

Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/08393985
Patent No. 5693476
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                               Query Match
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INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 860
TELECOMMUNICATION INFORMATION:
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ADDRESSEE: Dehlinger & Associates
STREET: 350 Cambridge Avenue, Suite 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Methods and Compositions for Modulation TITLE OF INVENTION: of Vesicular Release NUMBER OF SEQUENCES: 35
                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Sholtz, Charles K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: CI
HYPOTHETICAL: NO
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGINAL SOURCE:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
                                                                                                                                                                                                                                                           Local Similarity nes 12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: doub
TOPOLOGY: unknown
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ZIP: 94306
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2..859
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100.0%; Pred. No. 1
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PRIOR APPLICATION NUMBER: US 60/094,190 PRIOR FILING DATE: 1998-07-27 NUMBER OF SEQ ID NOS: 33142

CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 199-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18

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US-09-252-991A-12363
                                                                                                  US-08-264-002-1
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LENGTH: 2262
                               Best Local Similarity Matches 12; Conserv
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Patent No. 5559019
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Best Local Similarity
                                                               Query Match
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                                                                                                                                                                                                                                                                                                TELEFAX: 619/455-5110
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
ATTOWNAKIN PH.D., LISA A.
NAME: TUMARKIN PH.D., LISA A.
REGISTRATION NUMBER: P-38,347
REGISTRATION NUMBER: PD3590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk.
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: GUI, JIAN-FANG
APPLICANT: FU, XIANG-DONG
TITLE OF INVENTION: NOVEL PROTEIN SERINE KINASE, SRPK1
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: SPENSLEY HORN JUBAS & LUBITZ
STREET: 1880 Century Park East, Fifth Floor
                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: PD
TELECOMMUNICATION INFORMATION:
                                                                                                                                                FEATURE:
                                                                                                                                                             CLONE: SRPK1
                                                                                                                                                                                                 TOPOLOGY: 15
                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 22-JUN-1994
CLASSIFICATION: 435
                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                        LENGTH: 4299 base pairs
                                                                                                                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         167 TGCAGCGTTCTC 156
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1 TGCAGCGTTCTC 12
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California
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                                Conservative
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                                            Score 12; DB 1; I
Pred. No. 1.5e+02;
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                                                               Length 4299;
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RESULT 15
US-09-221-017B-811
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                                                                Matches
                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                            TELEX: 706141
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
SEQUENCE 4413 base pairs
1.ENGTH: 4413 base pairs
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FILING DATE: 31-DEC-19
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PI
FILING DATE: 30-JAN-19
                                                                                                                                                                                                                                           TOPOLOGY: CICUL
MOLECULE TYPE: DNA
MOLECULE TYPE: DNA
                                                                                                                                          FEATURE:
NAME/KEY: misc_feature
LOCATION: 1...4413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PP2911
FILING DATE: 09-APR-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/AU98/01023
FILING DATE: 10-DEC-1998
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
PP1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: Windows
SOFTWARE: FastSEQ for Windows Version 2.0b
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/221,017B
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MEDIUM TYPE: Diskett
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PRIOR APPLICATION DATA:
PRIOR APPLICATION UNMBER: PP2911
                                                                                                                                                                                                              ANTI-SENSE: UNK
ORIGINAL SOURCE:
                                                                                                                                                                                                                       HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 650-813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: ROSS, Bruce C.
TITLE OF INVENTION: P. GINGIVALIS NUCLEOTIDES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 650
TELEFAX: 706141
                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Monroy, Gladys H
REGISTRATION NUMBER: 32,430
REFERENCE/DOCKET NUMBER: 27340-20021.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
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                                                                                                                                                                                               ORGANISM:
                                                                                                                                                                                                                                                                                             STRANDEDNESS:
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                      1 TGCAGCGTTCTC 12
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                                                                Conservative
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                                                                            100.0%; Score 12; DB 4;
100.0%; Pred. No. 1.5e+02;
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                                                                0;
                                                                Mismatches
                                                                <u>,</u>
                                                                Gaps
                                                                0;
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Search completed: January 20, 2004, 17:17:13 Job time: 21.7647 secs

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Database
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Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92:
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Gapop 10.0 , Gapext 1.0
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12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2324096 seqs, 1762381658 residues
                                                                                                                                                                                                                                                                                                                                                                                              Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*

2: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*

3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
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Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                 cgn2_6/ptodata/1/pubpna/US09 NEW PUB.seq:*
cgn2_6/ptodata/1/pubpna/US09 NEW PUB.seq2:*
cgn2_6/ptodata/1/pubpna/US10A PUBCOMB.seq:*
                   _6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
                                                                                                                                                                                    6/ptodata/1/pubpna/US09B_PUBCOMB.seq:*
_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                      /ptodata/1/pubpna/USO7_NEW_PUB.seq:*
/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                   'ptodata/1/pubpna/US09A_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                        ptodata/1/pubpna/US08_NEW_PUB.seq:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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. 12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	Score
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421	421	408	375	258	258	238	177	20	20	20	20	20	12	12	length
11	10	15	10	12	9	13	11	15	15	13	11	H	15	13	DB
US-09-907-969-157	US-09-884-441-157	US-10-066-543-625	US-09-960-352-1698	US-09-923-876-6331	US-09-923-876-6331	US-10-029-386-23488	US-09-764-891-2386	US-10-017-995-715	US-10-112-653-688	US-10-194-035-25	US-09-776-479-715	US-09-888-326-102	US-10-068-160-74	US-10-194-035-18	ID
Sequence 157, App	Sequence 157, App	Sequence 625, App		Sequence 6331, Ap		Sequence 23488, A	Sequence 2386, Ap	Sequence 715, App	Sequence 688, App	Sequence 25, Appl	Sequence 715, App	Sequence 102, App	Sequence 74, Appl	Sequence 18, Appl	Description

RESULT 2

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645	634	630	629	624	624	622	621	609	599	590	590	573	561	557	555	479	477	477	474	432	432	432	431	431	431	430	430	421
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US-10-066-543-331	-543-	US-10-066-543-1021	US-10-066-543-518	US-10-066-543-1146	US-10-066-543-638	US-10-066-543-128	US-10-066-543-526	US-10-066-543-1014	US-10-029-386-9788	US-10-066-543-733	US-10-066-543-144	US-10-066-543-610	US-10-066-543-665	US-10-066-543-343	US-10-066-543-750	US-09-918-995-20210	US-10-027-632-267906	US-10-027-632-267906	US-09-918-995-33034	US-10-146-502-1126	US-10-046-935-1126	US-09-878-178-1126	US-10-025-380-541	US-09-833-263-541	US-09-922-217-541	US-10-027-632-272428	US-10-027-632-272428	US-10-188-053-15/
			Sequence 5	Sequence 1		Sequence 1																		Sequence 5	Sequence 541,			sequence 1
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ALIGNMENTS

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PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PPLICATION NUMBER: US 60/176,115
PRIOR PLING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 18
LENGTH: 12
TYPE: DNA
ORGANISM: Artificial Sequence
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                                                                                                                                                                  ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-194-035-18
                                                                                 Query Match
Best Local S
Matches 12
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Publication No. US20030144229A1
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
                                                                                                                                                                                                           FEATURE:
                                                                                   12;
                                       1 TGCAGCGTTCTC 12
                                                                                                      Similarity
TGCAGCGTTCTC 12
                                                                                 Conservative
                                                                                 100.0%; Score 12; DB 13; 100.0%; Pred. No. 1e+03; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ITS USE TO INDUCE AN IMMUNE RESPONSE
                                                                                                                        Length 12;
                                                                                   Indels
                                                                                   <u>.</u>
                                                                                                                                                                                          DNA
                                                                                   Gaps
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APPLICANT: Hartmann, Gunther
ITITLE OF INVENTION: Methods for Enhancing Antibody-Induced
ITITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NUMBER: OF SEQ ID NOS: 848
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 102
LENGTH: 20
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                RESULT 4
US-09-776-479-715
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-74
                                                                                                                                                                                                                                                           US-09-888-326-102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PatentIn version 3.1
SEQ ID NO 74
LENGTH: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 74, Application US/10068160 Publication No. US20030060440A1 GENERAL INFORMATION:
Sequence
                                                                                                                                                                           Query Match
Best Local Similarity
Matches 12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 102, Application US/09888326 Publication No. US20030026801A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Weiner, George APPLICANT: Hartmann, Gun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/10/068,160 CURRENT FILING DATE: 2002-02-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 4239-61999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature
LOCATION: (0)...(0)
OTHER INFORMATION: phosphodiester backbone
                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                  FEATURE:
OTHER INFORMATION: Synthetic oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
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Application US/09776479
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100.0%; P
ative 0;
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100.0%; Pred. No. 1e+03;
tive 0; Mismatches
                                                                                                                                                                                              Score 12; DB 11
Pred. No. 1e+03;
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                                                                                                                                                                                                                  Length 20;
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RESULT 6 US-10-112-653-688

Sequence 688, Application US/10112653 Publication No. US20030050268A1 GENERAL INFORMATION:

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                                                                                                                                        , OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-10-194-035-25
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US-10-194-035-25
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                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF
APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FASTSEQ for Windows Version 3.0 SEQ ID NO 715
                                                                  Query Match
Best Local Similarity
Matches 12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 25, Appropriate Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
APPLICANT: Petersen, Deanna M.
APPLICANT: Fouron, Yves
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
TITLE OF INVENTION: Treatment of Asthma and Allergy
FILE REFERENCE: C1037/7013 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/776,479
CURRENT FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: US 60/179,991
PRIOR APPLICATION SATE: 2000-02-03
NUMBER OF SEQ ID NOS: 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Publication No. US20030087848A1
                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND FILE REFERENCE: 4239-63317 CURRENT APPLICATION NUMBER: US/10/194,035 CURRENT FILING DATE: 2002-07-12 PRIOR APPLICATION NUMBER: PCT/US01/01122 PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 20
TYPE: DNA
                                                                                                                                                                         TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Synthetic Sequence
                                                                                                                                                                                                                               ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12; Conservative
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                             TGCAGCGTTCTC 12
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 TGCAGCGTTCTC 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KLINMAN, Dennis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/10194035
                                                                    Conservative
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                                                                                    100.0%;
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100.0%; Pred. No.
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                                                                                    Score 12;
Pred. No.
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                                                                        Mismatches
                                                                                        1e+03;
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                                                                        Gaps
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; Sequence 2386, Application US/09764891
; Publication No. US20030077808A1
; GENERAL INFORMATION:
   APPLICANT: Rosen et al.
   TITLE OF INVENTION: Nucleic Acids, Proteins, and FILE REFERENCE: PC006
; CURRENT APPLICATION NUMBER: US/09/764,891
; CURRENT FILING DATE: 2001-01-17
; Prior application data removed - consult PALM of NUMBER OF SEQ ID NOS: 10231
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: C01039/70060(AWS)
CURRENT APPLICATION NUMBER: US/10/112,653
CURRENT FILING DATE: 2002-03-29
PRIOR APPLICATION NUMBER: US 60/279,642
PRIOR FILING DATE: 2001-03-29
NUMBER OF SEQ ID NOS: 1040
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 688
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                                                                                                                                                                                                                             RESULT 8
US-09-764-891-2386
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-017-995-715
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 715
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Best Local (
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Best Local (
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APPLICANT: Bratzler, Robert L.

TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids FILE REFERENCE: C1037/7025 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/10/017,995
CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: US 60/255,534
PRIOR FILING DATE: 2000-12-14
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APPLICANT: Berg, Daniel J.
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Synthetic Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
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Best Local S
Matches 12
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CURRENT FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence Listing Engine
SEQ ID NO 23488
LENGTH: 238
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                                                              APPLICANT: Lalgudi, Raghunath V.
APPLICANT: Kamigaki, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING
FILE REFERENCE: PL-0012-1 CON
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APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: EXPRESSION ANALYSIS TWO
FILE REFERENCE: ABOMICA-X-2
CURRENT APPLICATION NUMBER: US/09/923,876
CURRENT FILING DATE: 2001-08-06
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LOCATION: (142)
OTHER INFORMATION: n equals a,t,g,
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ORGANISM: Homo sapiens
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NI EXPRESSED IN PLACENTA, SIGNAL = 2.1

NI EXPRESSED IN HELA, SIGNAL = 2.7

ON: EXPRESSED IN HELA, SIGNAL = 2.7

ON: EXPRESSED IN BONE MARROW, SIGNAL = 1.6

ON: EXPRESSED IN BOTA LIVER, SIGNAL = 2.1

ON: EXPRESSED IN BAPULT LIVER, SIGNAL = 2.2

ON: EXPRESSED IN BRAIN, SIGNAL = 1.8

ON: EXPRESSED IN BRAIN, SIGNAL = 1.8

ON: EXPRESSED IN BRAIN, SIGNAL = 1.8

ON: EXPRESSED IN BRAIN, SIGNAL = 1.0

ON: EXPRESSED IN BRAIN, SIGNAL = 1.0

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Pred. No. 9.3
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PRIOR APPLICATION NUMBER: 09/298,329

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US-09-960-352-1698/c
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             Sequence 1698, Application US/09960352
Patent No. US20020137139A1
GENERAL INFORMATION:
APPLICANT: Warren, Wesley C.
APPLICANT: Tao, Nengbing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 6331, Application US/09923876
Publication No. US20030237110A9
GENERAL INFORMATION:
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SEQ ID NO 6331
LENGTH: 258
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SEQ ID NO 6331
LENGTH: 258
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Best Local :
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NAME/KEY: misc feature
OTHER INFORMATION: Incyt
NAME/KEY: unsure
LOCATION: 43, 46
OTHER INFORMATION: a, t,
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OTHSR INFORMATION: Incyt
NAME/KEY: unsure
LOCATION: 43, 46
OTHER INFORMATION: a, t,
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APPLICANT: Kamigaki, Laura Y. (Ito)
APPLICANT: Sherman, Bradley K.
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING
FILE REFERENCE: PL-0012-1 CON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/923,876
CURRENT FILING DATE: 2001-08-06
PRIOR APPLICATION NUMBER: 09/298,329
PRIOR FILING DATE: 1999-04-21
PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1998-05-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/085,331
PRIOR FILING DATE: 1998-05-05
NUMBER OF SEQ ID NOS: 6332
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ORGANISM: Zea mays
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ORGANISM: Zea mays
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Tao, Nengbing
Byatt, John C.
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llarity 100.0%;
Conservative (
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; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-066-543-625
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SEQ ID NO 1698
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Patent No. US20020119158A1
GENERAL INFORMATION:
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Matches
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APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Durham, Margarita
APPLICANT: Stolk, John A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: AND DIAGNOSIS OF COLON CANCER
FILE REFERENCE: 210121.563
CURRENT APPLICATION NUMBER: US/10/066,543
CURRENT FILING DATE: 2002-01-31
NUMBER OF SEQ ID NOS: 3417
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TYPE: DNA
ORGANISM: Bos taurus
OTHER INFORMATION: Clone ID: 08-LIB3057-008-Q1-K1-B11
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Fanger, Gary R.
Smith, Carole L.
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APPLICANT: Hill, Paul
APPLICANT: Albone, Earl
APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILLING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOOTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 157
LENGTH: 421
TYPE: DNA
ORGANISM: Homo sapiens
US-09-907-969-157
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US-09-907-969-157/c
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; ORGANISM: Homo sapien
US-09-884-441-157
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APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Pling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Ranger, Gary Richard
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
APPLICANT: Hill, Paul
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 157
LENGTH: 421
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745	D53745	290	100.	37
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09076	BE09076	272		26
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69276	BZ76927	267	100.	24
88449		265	100.	23
BE762835 QV3-NT	BE76283	262	100.	22
59375	BI59375	256	100	21
10975		253	100.	20
AA532401 n153e10.s	AA532401	251	100.	19
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H759248 KG0061	BH7592	174	100.	თ
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ALIGNMENTS

	REFERENCE AUTHORS	PUBMED	JOURNAL		TITLE			AUTHORS	REFERENCE				•	ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION			DEFINITION	Locus	CNS04GF1
rizames, C., rischer, C., Bouneau, b., Billault, A., Quetler, r.,	Roest Crollius, H., Jaillon, O., Dasilva, C., Ozouf-Costaz, C.,	10835645	Nat. Genet. 25 (2), 235-238 (2000)	using Tetraodon nigroviridis DNA sequence	Estimate of human gene number provided by genome-wide analysis	Saurin, W. and Weissenbach, J.	Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F.,	Roest Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C.,		Tetradontoidea; Tetraodontidae; Tetraodon.	Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;	Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Tetraodon nigroviridis	Tetraodon nigroviridis	GSS; genome survey sequence.	AL289558.1 GI:8028135	AL289558	Remience	108I20 of library G from Tetraodon nigroviridis, genomic survey	Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone	CNS04GF1 56 bp DNA linear GSS 01-SEP-2000	

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REFERENCE
AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ms60f12.rl Stratagene mouse embryonic carcinoma (#937317) Mus musculus cDNA clone IMAGE:615983 5' similar to TR:E93245 E93245 INSERT IN THE FAS APOPTOSIS GENE OF MRL-IPR/IPR. [1] ;, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saurin,W., Bernot,A. and Weissenbach,J. Characterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis Genome Res. 10 (7), 939-949 (2000)
                                                                                         Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further:
                                                                                                                                               Unpublished
Contact: Marra M/Mouse EST Project
WashU-HMH Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Lo
Tel: 314 286 1810
Fax: 314 286 1810
                                                                                                                                                                                                                                                                               1 (bases 1 to 79)
Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubus Marra, M., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M., Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B., Theising, B., Wylie, T., Lennon, G., Soares, B., Wilson, R. and Waterston, R.
The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
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                                  Possible reversed clone: similarity on wrong strand
Seq primer: -28m13 rev1 ET from Amersham
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quality sequence stop: 1.
Location/Qualifiers
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/note="Genoscope sequence ID : C0BG108BE10SP1-end :
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/mal_type="genomic DNA"
/db xref="taxon:99883"
/clone="108120"
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Pred. No. 4.5e+03;
Mismatches 0;
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   'note="Organ: breast_normal; Vector: pucl8; Site_1: Smal;
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54 TGCAGCGTTCTC 43
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Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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MR2-BN0114-270400-004-g06_1 E
                                                                                                                                                                                 Email: asimpson@ludwig.org.br.

Email: asimpson@ludwig.org.br.

This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=MR2-BN0114-270400-004-g06_1&t3=2000-04-27&t4=1)

Seq primer: puc 18 forward

Seq primer: puc 18 forward
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                   Tel: +55-11-2704922
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                                                                                                                                                              quality sequence stop: 116.
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/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="BN0114"
                                                              /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  clone_lib="Stratagene mouse embryonic
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/dev_stage="embryonic"
/lab_host="SOLR (kanamycin resistant)"
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/db_xref="taxon:10090"
/clone="IMAGE:615983"
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USDA, ARS, Beltsville Agricultural Research Center
Bd1g. 200 Rm 2A, Beltsville, MD 20705, USA
Tel: 301 504 8416
Fax: 301 504 8414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bos.
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1 TGCAGCGTTCTC 12
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BACKWARD: GTTTTCCCAGTCACGACG
BAIRE: 98 row: B COLUMN: 5
Seq primer: ATTTAGGTGACACTATAG.
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Single pass sequencing. Bases c
v0.980904.e. Vector identified
and _minmatch 12 options.
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                                                                                                                                                                                                                                       /organism="Bos taurus"
/mol type="mRN"
/db xref="taxon:9913"
/tissue type="pooled"
/lab host="DH10B"
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                                                                                                                           /clone_lib="BARC 5BOV"
/note="Vector: pCMV SPORT6; Site_1: NotI; Site_2: SalI;
Library made from pooled mRNA isolated from mammary
tissues at eight physiological, developmental, and disease
states."

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                                                  Score 12; DB 10;
Pred. No. 5.8e+03;
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                                                                    Length 121;
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BH194564/c
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                                                                                                                        RESULT 6
BH759248/c
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                                    BH759248 174 bp DNA linear GSS 12-MAR-2002 KG00610-3prime Drosophila melanogaster P(SUPOr-P) P element insertion lines Drosophila melanogaster genomic Sequence recovered from 3' end of P element, genomic survey sequence.
                                                                                                                                                                                                                                                                                         12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: bjorn.andersson@genpat.uu.se Clones are derived from the Trypanosoma cruzi CL-Brener BAC library TC3. For clone availability, please contact Dr. Bjorn Andersson at Uppsala University (bjorn.andersson@genpat.uu.se).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Bjorn Andersson
Department of Genetics and Pathology
Uppsala University
Rudbeck Laboratory, SE-751 85, Uppsala, Sweden
Tel: 46 18 471 4107
Fax: 46 18 471 4808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Trypanosoma; Schizotrypanum.

1 (bases 1 to 169)

Kluge, S., Edwards, K.E., Nilsson, D., Bontempi, E.J., Myler, Kl., Ghedin, E., El-Sayed, N.M. and Andersson, B.

Clustering and analysis of BAC-end and GSS sequences from
BH759248
BH759248.1 GI:19352487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Other_GSSs: TC3-3E5.TP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Trypanosoma cruzi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seq primer: T7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Trypanosoma cruzi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     survey sequence.
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                                                                                                                                                                                                                                                TGCAGCGTTCTC 12
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                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                      /Clone lib="TC3"
/clone lib="TC3"
/clone lib="TC3"
/note="Vector: pBeloBAC11; Site_1: Hin dIII; Constructed
for Uppsala University by Marie-Christine Le Paslier in
the laboratory of Denis Le Paslier at the Centre d'Etude
du Polymorphisme Humain (CEPH), Paris, France. Briefly,
Trypanosoma cruzi CL-Brener agarose embedded DNA (obtained
from Dr. Franco da Silveira) was partially digested with
Hin dIII. High molecular weight fragments were ligated in
pBeloBAC11 digested with Hin dIII. The average insert
size is 100 kb. Total clone coverage: approx. 33 X the
haploid genome."

30 a 38 c 51 g 50 t
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                                                                                                                                                                                                                                                                                                          DB 28;
6.5e+03;
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The Berkeley Drosophila Genome Project Gene Disruption Project
                                                                                   i (bases 1 to 181)
Clark, M., Johnson, S.L., Lehrach, H., Lee, R., Li, F., Marra, M., Eddy (Slark, M., Johnson, S.L., Lehrach, H., Lee, R., Li, F., Wylie, T., Underwood (S., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwood (K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Schurk, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R.
                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                               181 bp
faa36c0k.yl zebrafish fin day3 x
IMAGE:5911382.5', mRNA sequence.
BQ419254
BQ419254.1 GI:21124455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence recovery method was inverse PCR.
Sequence orientation is forward strand relative to 5' end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Berkeley Drosophila Genome Project
University of California, Berkeley
LSA Building, Berkeley, CA 94720-3200,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished Contact: Ge:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.

1 (bases 1 to 174)
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Drosophila melanogaster
                                                                                                                                                                                                                                                                                                    Danio rerio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Class: transposon-tagged.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: gerry@fruitfly.berkeley.edu
Contact: Stephen L. Johnson
                     Unpublished
                                             WashU Zebrafish EST Project 1998
                                                                                                                                                                                                                                                                                                                    Danio rerio (zebrafish)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        recognition sequence.
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                                                                    Wilson, R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="Inverse PCR was performed on Drosophila melanogaster strains each of which contains one or more P(SUPOr-P) P-element transposon insertion. The resultant fragment for each strain was directly sequenced to determine the genomic sequence at the site of insertion. Details of the protocols used can be found at http://www.fruitfly.org/about/methods/inverse.pcr.html." a 36 c 51 g 39 t
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/mol_type="genomic DNA"
/db_xref="taxon:7227"
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Pred. No. 6.5e+03;
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n Danio
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50 TGCAGCGTTCTC 61
                                                                                                                                      Contact: Kim YS
Genome Research Center
Korea Research Institute of Bioscience & Biotechnology
S2 Eoeun-dong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
Fax: +82-42-860-4409
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K-EST0137622 S21SNU520 Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tel: 314 286 1800
Fax: 314 286 1810
Email: zbrafish@watson.wustl.edu
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4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108,
                                                                                                                                                                                                                                                                            21C Frontier Korean EST Project 2001
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA sequence.
                                                                                           Email: yongsung@mail.kribb.re.kr
Plate: 58 row: D column: 08
                                                                                                                                                                                                                                                                                                                                               Kim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R., Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           info@genomesystems.com) and Research Genetics, Huntsville, Alabama (web address: www.resgen.com) (email contact: info@resgen.com) and
                                                                                                                                                                                                                                                                                                                         Kim, Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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Location/Qualifiers
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                                                                   quality sequence stop: 190.
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/sex="mixed male and female"
/tissue_type="3 day fin regenerates"
/tissue_type="3 day fin regenerates"
/lab host="B. coli XLOLR"
/clone_lib="zebrafish fin day3 regeneration"
/clone_lib="zebrafish fin day3 regeneration"
/note="Vector: pBK-CMV; Site_1: EcoRI; Site_2: XhoI; 1st
strand_cDNA_primed_with (GA)TOACTAGTCTCGAG(T)18, followed
by second_strand_synthesis, and ligated_to_5' adapter (5')
-aattcggcacgag-3', 3'-gccgtgctc-5'. cDNA was cloned
directionally (EcoRI/XhoI) into Stratagene_Sap express
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lambda phage arms. Mass invivo excision done to obtain inserts in pBK-CMV phagemid."
47 c 39 g 32 t
/organism="Homo sapiens"
                                           Location/Qualifiers
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100.0%; Pred. No.
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N520-58-D08 5',
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JOURNAL COMMENT
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                                                                                                                                                                         CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome
Clone distribution: NCI-CGAP clone distribution
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 282 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 201)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
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                                                                                                                                                                                                                                                                                                                                                             Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Michael R. Emmert-Buck, M.D., Ph.D.

_CDNA_Library Preparation: M. Bento Soares, Ph.D., M. Fatima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                             Bonaldo, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D.
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/clone="Crgan: Stomach; Vector: pTZ18RP1; Site 1: EcoRI;
/note="Crgan: Stomach; Vector: pTZ18RP1; Site 1: EcoRI;
Site 2: NOEI; The poly (A) + RNA was dephosphorylated with
bacterial alkaline phosphatase (BAP) and then decapped
with tabacco acid pyrophosphatase (TAP). The decapped
intact mRNA was ligated with DNA-RNA linker including EcoR
I site by treatment of 74 RNA ligase and the first strand
cDNA was synthesized from oligo dT-selected mRNA by
priming with dT-tailed vector. The dT-tailed vector was
circularized with E. coli DNA ligase after digestion of .
EcoRI which site is also included in vector. An RNA strand
converted to a DNA strand by Okayama-Berg method. The
obtained cDNA vectors were used for transformation of
competent cells E. coli ToplOF' by electroporation method.
The cDNA libraries constructed by this method are
full-length enriched cDNA library."
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:1941810"
                                                                                                                           Location/Qualifiers
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/cell_line="SNU-520"
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RESULT 9 AI203283 LOCUS

KEYWORDS

TITLE

FEATURES

Query Match 100.0%; Best Local Similarity 100.0%;

Score 12; Pred. No.

, DB 9; . 7e+03;

Length 211

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REFERENCE
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AI858682
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CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.B. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 1701 Std Exror: 0.00
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D.,
Emmert-Buck, M.D., Ph.D.
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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/note="Wector: pT/73D-Pac (Pharmacia) with a modified
polylinker; Site_1: Not I; Site_2: Eco RI; Plasmid DNA
from the normalized library NCI_CGAP_GC4 was prepared, and
ss circles were made in vitro. Following HAP purification,
this DNA was used as tracer in a subtractive hybridization
reaction. The driver was PCR-amplified cDNAs from a pool
of 5,000 clones made from the same library (cloneIDs
1257096-1258631, 1469064-1470983, and 1475592-1476743).
Subtraction by Bento Soares and M. Fatima Bonaldo. "
a 36 c 64 g 61 t
                    11538-014"
1 56 C
                                                                 /clone lib="NCI CGAP Ut1"
/note="Organ: uterus; Vector: pCMV-SPORT6; Site_1: Sall;
/note="Organ: uterus; Vector: pCMV-SPORT6; Site_1: Sall;
Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.75 kb. Life Technologies catalog #:
                                                                                                                                                               /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2427448"
/tissue_type="well-differentiated endometrial
adenocarcinoma, 7 pooled tumors"
/lab_host="DH10B"
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/lab_host="DH10B"
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tive 0; Mismatches 0;
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RESULT 11
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RESULT 12
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RCO-MT0059-210600-031-a08 MT0059 Homo sapiens cDNA,
BE831758
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R., Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F., Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H., Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V., O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                    1 TGCAGCGTTCTC 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (http://www.ludwig.org.br/scripts/gethtml2.pl?t1=&t2=RC0-MT0059-210
600-031-a08&t3=2000-06-21&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer
Project. This entry can be seen in the following URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Simpson, A.J. Shotgun sequencing of the human transcriptome with ORF expressed
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1 (bases 1 to 221)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Seq primer: puc 18 forward
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Simpson A.J.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence tags
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                                                                                                                                                    Similarity
                                                                 TGCAGCGTTCTC 123
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63 c 49 g '
                                                                                                                                                                                                                                                   /note="Organ: marrow; Vector: puc18; Site_1: Smal; Site_2: Smal; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196.
716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low
                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="MT0059"
                                                                                                                                                                                                                                                                                                                                                                                                           organism="Homo sapiens"
mol_type="mRNA"
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Pred. No. 7.1
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                                                                                                                                                      7.1e+03;
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                                                                                                                                                                      Length 221;
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CA387791/c
                 REFERENCE
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Best Local :
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Kim, N.S., Hahn, Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5', mRNA sequence.
BM797505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                             CA387791
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Oncorhynchus mykiss
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
1 (bases 1 to 235)
Rexroad, C.E. and Keele, J.W.
                                                                                                                                                                                                                                                                           669857 NCCCWA 1RT Oncorhynchus
5', mRNA sequence.
CA387791
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Plate: 77 row: B column: 01
High quality sequence stop: 227.
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Korea Research Institute of Bioscience & Biotechnology
Korea Research Ong Yuseong-gu, Daejeon 305-333, South Korea
Tel: +82-42-860-4470
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K-EST0080661 S22SNU16n1 Homo sapiens cDNA clone S22SNU16n1-77-B01
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                  Oncorhynchus mykiss (rainbow trout)
                                                                                                                                                                                                                                                  CA387791.1 GI:24716401
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//clone_lib="$22$NU16n1"
//note="Organ: Stomach; Vector: pT773-Pac; Site_1: EcoRI;
//note="Torgan: Stomach; Vector: pT773-Pac; Site_1: EcoRI;
//note="Torgan: Stomach; Vector: pT773-Pac; Site_1: EcoRI;
//note="Torgan: Stomach; Vector: pT773-Pac; NB. (1996), Genome Sourzes laboratory and it was constructed as described by Bonaldo, M.F., Lennon, G. and Soares, M.B. (1996), Genome Research 6(9): 791-806. RNA was prepared from harvested cells of SNU-16 culture. SNU-16 cell was obtained from Korean Cell Line Bank (KCLB). SNU-16 was established from ascitic fluids of Korean patients by Park J.G. et al. (1990), Cancer Res 50: 2773-2780."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /cell_type="Lymphoblast-like"
/cell_line="SNU-16"
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/mol_type="mRNA"
/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                           mykiss cDNA clone 1RT164L05_B_F03
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                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Smith TPL USDA, ARS, US Meat Animal Research Center PO Box 166, Clay Center, NE 68933-0166, USTel: 402 762 4366 Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.

1 (bases 1 to 237)
Fahrenkrug,S.C., Smith,T.P.L., Freking,B.A., Cho,J., White,J., Vallet,J., Wise,T., Rohrer,G.A., Pertea,G., Sultana,R., Quackenbush,J. and Keele,J.W.
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                                                                                                    Plate: 24 row: F column: 6
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                     FORWARD: AGGAAACAGCTATGACCAT
BACKWARD: GTTTTCCCAGTCACGACG
Plate: 24 row: F column: 6
                                                                                                                                                                                                                                                                                                        Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Porcine gene discovery by normalized cDNA-library sequencing and EST cluster assembly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sus scrofa (pig)
Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AW416284
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Seq primer: AGCGGATAACAATTTCACACAGGA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: crexroad@ncccwa.ars.usda.gov
Single pass sequencing. Bases called with phred v0.020425.c and
trimmed with the aid of the trim_alt option. Vector identified by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tel: 304 724 8340 x2129 Fax: 304 725 0351
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11876 Leetown Road, Kearneysville, WV 25430, USA
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ilarity 100.0%;
Conservative (
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/mol_type="mRNA"
/db_xref="taxon:8022"
/clone="1RT164105 B_F03"
/tissue_type="pooled"
/lab_host="DH10B"
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/clone lib="NCCCWA IRT"
/clone lib="NCCCWA IRT"
/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
/note="Total Representation of the continuous continuous
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                                                                  Location/Qualifiers
/organism="Sus scrofa"
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Pred. No. 7.2e+03;
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VERSION
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AZ596456
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                                                                                                                                                                                                                                                                                                                                                                                                      source
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 801 585 5606
Ffax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: (
Plate: 0409 row: A column: 18
Seq primer: CACACAGGAAACAGCTATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                         High quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 238)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AZ596456
1M0409A18R Mouse 10kb plasmid UUGC1M library Muclone UUGC1M0409A18 R, genomic survey sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84112,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mouse whole genome scaffolding with paired end reads from 10kb
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                                                                                                                                                                                                                                                                                  /organism="Mus musculus"
/mol type="genomic DNA"
/strain="C57BL/5"
/db xref="taxon:10090"
/clone="UUGC1M0409A18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="pooled"
/lab_host="DH10B"
/clone_lib="MARC_2PIG"
/note="Vector: pCMV SPORT6; Site_1: NotI; Site_2: SalI;
/inbrary_made_from_pooled_tissue_from_testis, ovary,
endometrium, hypothalamus, pituitary, and placenta."
a 69 c 67 g 51 t
                Laboratory Mouse DNA Resource (http://www.jax.org/resources/documents/dnares/). The DNA (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polymuclaetide kinase. Adaptor oligonuclaetides were polymuclaetide kinase. Adaptor oligonuclaetides were ligated to the blunt ends in high molar excess. The
                                                                                                                                                                         /lab host="E. Coli strain XL10-Gold, T1-resistant, F-" /clome 10th Mouse 10th plasmid UUGCIM library" /note="Vector: pW0421v; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson
adaptored DNA was purified and size-selected for a 9.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="mRNA"
/db_xref="taxon:9823"
                                                                                                                                                                                                                                                                      'sex="Male"
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    238 bp DNA linear GSS 13
smid UUGC1M library Mus musculus
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10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pwD42 (gi[4732114]gb]AF129072.1], a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adaptored mouse DNA was annealed to
adaptored vector DNA, and transformed into
chemically-competent E. coli XL10-Gold (Stratagene) cells
and selected for ampicillin resistance."

BASE COUNT
57 a 58 c 57 g 66 t

Query Match
Best Local Similarity 100.0%; Score 12; DB 28; Length 238;
Bast Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Search completed: January 20, 2004, 18:44:52 Job time : 776.603 secs 음 성

1 TGCAGCGTTCTC 12 |||||||||| 152 TGCAGCGTTCTC 163